DSC-H5

SERVICE MANUAL

LEVEL 2

Ver. 1.1 2006. 06

Revision History

How to use Acrobat Reader

Internal memory ON BOARD



US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model
Brazilian Model
Hong Kong Model
Korea Model
Tourist Model
Japanese Model

Link

SPECIFICATIONS	BLOCK DIAGRAMS	PRINTED WIRING BOARDS
SERVICE NOTE	FRAME SCHEMATIC DIAGRAM	REPAIR PARTS LIST
DISASSEMBLY	SCHEMATIC DIAGRAMS	

- Precaution on Replacing the SY-150 board

Note : The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	**Note :** Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

DIGITAL STILL CAMERA

SONY®

DSC-H5_L2
9-852-117-31

Sony EMCS Co.

2006F1600-1

Published by Kohda TEC

These specifications are extracted from User's Guide/ Troubleshooting of DSC-H5 (2-673-176-11 (1)).

Self Diagnosis Supported model

Cyber-shot Digital Still Camera

MEMORY STICK

SPECIFICATIONS

Camera

[System]

Image device	7.20 mm (1/2.5 type) color CCD, Primary color filter
Total pixel number of camera	Approx. 7 410 000 pixels
Effective pixel number of camera	Approx. 7 201 000 pixels
Lens	Carl Zeiss Vario-Tessar 12× zoom lens f = 6.0 – 72.0 mm (36 – 432 mm when converted to a 35 mm still camera) F2.8 – 3.7
Exposure control	Automatic exposure, Shutter speed priority, Aperture priority, Manual exposure, Scene Selection (7 modes)
White balance	Automatic, Daylight, Cloudy, Fluorescent, Incandescent, Flash, One push
File format (DCF compliant)	Still images: Exif Ver. 2.21 JPEG compliant, DPOF compatible Movies: MPEG1 compliant (Monaural)
Recording media	Internal Memory (30 MB) "Memory Stick Duo"
Flash	Flash range (ISO set to Auto): approx. 0.3 m to 9.0 m (11 7/8 inches to 29 feet 6 3/8 inches) (W)/approx. 0.9 m to 6.8 m (35 1/2 inches to 22 feet 3 3/4 inches) (T)
Viewfinder	Electric viewfinder (color)

[Input and Output connectors]

A/V OUT jack (Monaural)	Minijack Video: 1 Vp-p, 75 Ω, unbalanced, sync negative Audio: 327 mV (at a 47 kΩ load) Output impedance 2.2 kΩ
USB jack	mini-B
USB communication	Hi-Speed USB (USB 2.0 compliant)

[LCD screen]

LCD panel	7.5 cm (3.0 type) TFT drive
Total number of dots	230 400 (960×240) dots

[Finder]

Panel	0.5 cm (0.2 type) color
Total number of dots	Approx. 200 000 dots equivalent

[Power, general]

Power	HR 15/51:HR6 (size AA) Nickel-Metal Hydride batteries (2), 2.4 V LR6 (size AA) alkaline batteries (2), 3 V ZR6 (size AA) Oxy Nickel Primary Battery (2), 3 V AC-LS5K AC Adaptor 4.2 V
Power consumption (during shooting with the LCD screen)	1.4 W
Operating temperature	0 to 40°C (32 to 104°F)
Storage temperature	–20 to +60°C (–4 to +140°F)
Dimensions	113.2×83.0×94.0 mm (4 1/2 inches × 3 3/8 inches × 3 3/4 inches) (W/H/D, excluding protrusions)
Mass	Approx. 554 g (1 lb 3.5 oz) (including two batterries, shoulder strap, adaptor ring, lens hood, lens cap, etc.)
Microphone	Electret condenser microphone
Speaker	Dynamic speaker
Exif Print	Compatible
PRINT Image Matching III	Compatible
PictBridge	Compatible

BC-CS2A/CS2B Ni-MH battery charger

Power requirements	AC 100 to 240 V, 50/60 Hz, 3 W
Output voltage	AA: DC 1.4V 400 mA × 2 AAA: DC 1.4 V 160 mA × 2
Operating temperature	0 to +40°C (+32 to +104°F)
Storage temperature	–20 to +60°C (–4 to +140°F)
Dimensions	Approx. 713091 mm (2 7/8×1 3/16×3 5/8 inches) (W/H/D)
Mass	Approx. 90 g (3 oz)

Design and specifications are subject to change without notice.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270˚C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

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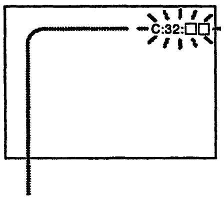
5. REPAIR PARTS LIST

1. SERVICE NOTE

1-1. DESCRIPTION ON SELF-DIAGNOSIS DISPLAY

Self-diagnosis display

The camera has a self-diagnosis display. This function displays the camera condition with five-digits (a combination of a letter and figures) on the LCD screen. If this occurs check the following code chart. The five-digits display informs you of the camera's current condition. The last two digits (indicated by □□) will differ depending on the state of the camera.



Self-diagnosis display

- C: □□: □□
  The contents which can be handled by customer, are displayed.
- E: □□: □□
  The contents which can be handled by engineer, are displayed.

Display Code	Countermeasure	Cause	Caution Display During Error
C:32:□□	Turn the power off and on again.	Trouble with hardware.	SYSTEM ERROR
C:13:□□	Format the "Memory Stick" or internal memory.	"Memory Stick" or internal memory is unformatted.	FORMAT ERROR
	Insert a new "Memory Stick".	"Memory Stick" is broken.	MEMORY STICK ERROR
	Turn the power off and on again.	Trouble with internal mamory.	INTERNAL MEMORY ERROR
E:61:□□	Checking of lens drive circuit.	When failed in the focus zoom initialization.	–
E:62:□□	Inspect angular velocity sensor peripheral circuits.	Steady shot function does not work well.	
E:91:□□	Checking of flash unit or replacement of flash unit. (Note)	Abnormality when flash is being charged.	
E:92:□□	Insert a batteries correctly.	Batteries are pack is not inserted correctly.	

Note : After repair, be sure to execute the "Initialize" of the setup screen.

1-2. METHOD FOR COPYING OR ERASING THE DATA IN INTERNAL MEMORY

The data can be copied/erased by the operations on the Setup screen. (When erasing the data, execute formatting the internal memory.)

Note: 1 When replacing the SY-150 board, erase the data in internal memory of the board before replacement.
Note: 2 When replacing the SY-150 board or the IC202 on the SY-150 board, execute formatting and initialize the internal memory after replacement.

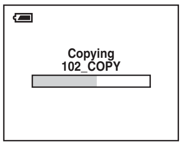
Method for copying the data in internal memory

Copy

Copies all images in the internal memory to a "Memory Stick Duo".

	OK	See the following procedure.
✓	Cancel	Cancels the copying.

① Insert a "Memory Stick Duo" having 32 MB or larger capacity.
② Select [OK] with ▲ on the control button, then press ●.
The message "All data in internal memory will be copied Ready?" appears.
③ Select [OK] with ▲, then press ●.
Copying starts.



- Use a fully charged Nickel-Metal Hydride battery or the AC Adaptor (not supplied). If you attempt to copy image files using a batteries with little remaining charge, the batteries may run out, causing copying to fail or possibly corrupting the data.
- You cannot copy individual images.
- The original images in the internal memory are retained even after copying. To delete the contents of the internal memory, remove the "Memory Stick Duo" after copying, then execute the [Format] command in (Internal Memory Tool).
- You cannot select a folder copied on a "Memory Stick Duo".
- Even if you copy data, a (Print order) mark is not copied.

Method for formatting the internal memory

This item does not appear when a "Memory Stick Duo" is inserted in the camera.
The default settings are marked with ✓.

Format

Formats the internal memory.
- Note that formatting irrevocably erases all data in the internal memory, including even protected images.

	OK	See the following procedure.
✓	Cancel	Cancels the formatting.

① Select [OK] with ▲ on the control button, then press ●.
The message "All data in internal memory will be erased Ready?" appears.
② Select [OK] with ▲, then press ●.
The format is complete.

• PROCESS AFTER FIXING FLASH ERROR

When "FLASH error" (Self-diagnosis Code E : 91 : **) occurs, to prevent any abnormal situation caused by high voltage, setting of the flash is changed automatically to disabling charge and flash setting.
After fixing, this setting needs to be deactivated. Flash error code can be initialized by the operations on the Setup screen.

Method for Initializing the Flash Error Code

Initialize

Initializes the setting to the default setting.

	OK	See the following procedure.
✓	Cancel	Cancels the resetting.

① Select [OK] with ▲ on the control button, then press ●.
The message "Initialize all settings Ready?" appears.
② Select [OK] with ▲, then press ●.
The settings are reset to the default setting.
Make sure that the power is not disconnected during resetting.

1-3. PRECAUTION ON REPLACING THE SY-150 BOARD

- The Repair Board has already been adjusted. Re-initialization or EVR data copy from the set before repair is not required.
- Perform "VIDEO OUT Default Data Check" and "Initial Language Data Check" mentioned below, and also the adjustment items necessary after SY Board replacement.

1-4. VIDEO OUT DEFAULT DATA CHECK

When you replace to the repairing board, the written data of repairing board also might be changed to original setteing because of broadcast system (NTSC/PAL).
When the data has changed because of board replaceing etc., check the default data of VIDEO OUT if destination code is right. If not, rewrite to the right value.

VIDEO OUT Default Data

Page	Address	Data	
		NTSC	PAL
4F	8D	00	01

Writing Method:
1) Select page: 00, address: 01, and set data: 01.
2) Select page: 4F, address: 8D, and set data: 00 (NTSC) or data: 01 (PAL).
3) Select page: 40, address: 38, and set data: 00.
4) Click [Save] on the SEUS screen.
5) Select page: 80, address: 34, and check that the data is "00".
6) Select page: 80, address: 30, and check that the data is "00".
7) Select page: 00, address: 01, and set data: 00.

1-5. INITIAL LANGUAGE DATA CHECK

If the SY-150 board was replaced, initial language setting may be changed. Accordingly, change the following data so as to set same initial language as that of the set distributing in each region.

Initial language: Language displayed at the next starting if the setting of Setup menu was reset.
It is different from the language setting selectable with the menu.

Initial Language Data

Page	Address	Data	Language	GP1	GP2	GP3	GP4
4F	8C	00	English		●	●	●
		01	Japanese	●			
		04	Spanish			●	●
		06	Portugal				●
		08	Simplified Chinese				●
		0B	Russian			●	
		0D	Korean				●

Note: GP1 is fixed to Japanese.
GP2 is fixed to English.
GP3 is either English, Spanish, or Russian.
GP4 is either English, Spanish, Portugal, Simplified Chinese, or Korean.

Writing Method:
1) Select page: 00, address: 01 and set data: 01.
2) Select page: 4F, address: 8C, and set the Initial Language Data.
3) Select page: 40, address: 38, and set data: 00.
4) Click [Save] on the SEUS screen.
5) Select page: 80, address: 34, and check that the data is "00".
6) Select page: 80, address: 30, and check that the data is "00".
7) Select page: 00, address: 01, and set data: 00.
8) Turn off the camera.
9) Turn on the camera. Execute "Initialize" of Setup screen.
10) Check the language displayed when the camera starts.

2. DISASSEMBLY

Link

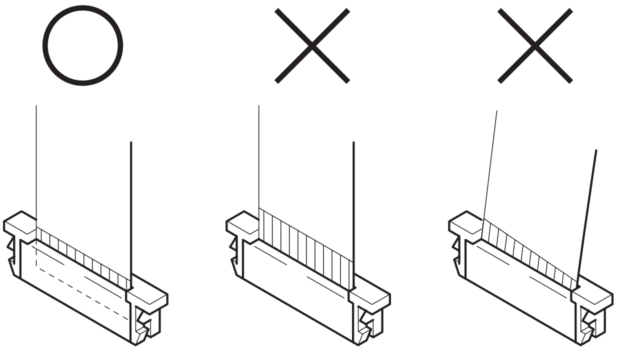
- DISASSEMBLY
- HELP

- COMMON NOTE FOR DISASSEMBLY

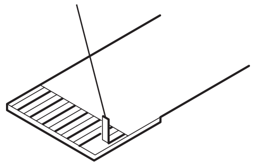
2. DISASSEMBLY

NOTE FOR REPAIR

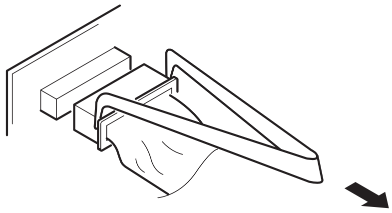
Make sure that the flat cable and flexible board are not cracked of bent at the terminal.
Do not insert the cable insufficiently nor crookedly.



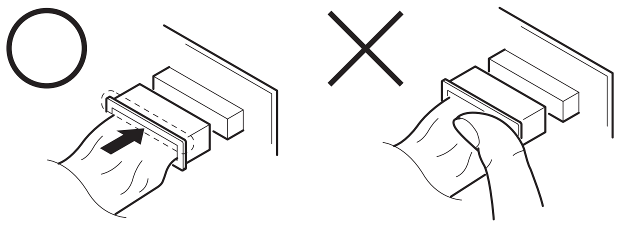
Cut and remove the part of gilt which comes off at the point. (Take care that there are some pieces of gilt left inside)



When remove a connector, don't pull at wire of connector. Be in danger of the snapping of a wire.



When installing a connector, don't press down at wire of connector. Be in danger of the snapping of a wire.

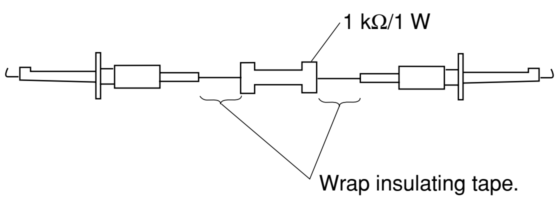


DISCHARGING OF THE FLASHLIGHT POWER SUPPLY CAPACITOR

The charging elect capacitor 320uF (330V) is charged up to the maximum 300 V potential.
There is a danger of electric shock by this high voltage when the capacitor is handled by hand. The electric shock is caused by the charged voltage which is kept without discharging when the main power of the DSC-H5 is simply turned off. Therefore, the remaining voltage must be discharged as described below.

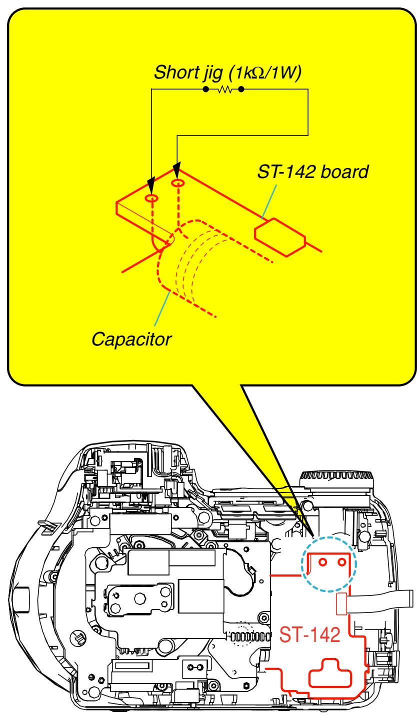
Preparing the Short Jig

To preparing the short jig. a small clip is attached to each end of a resistor of 1 kW /1 W (1-215-869-11)
Wrap insulating tape fully around the leads of the resistor to prevent electrical shock.



Discharging the Capacitor

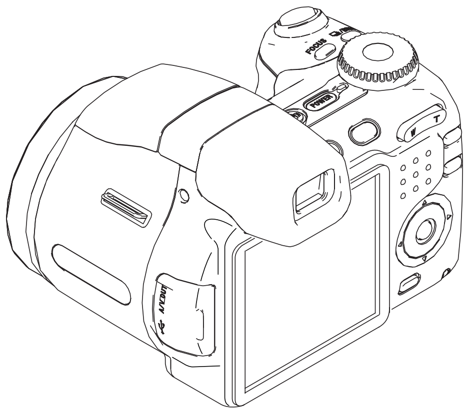
Short circuits between the positive and the negative terminals of charged capacitor with the short jig about 10 seconds.

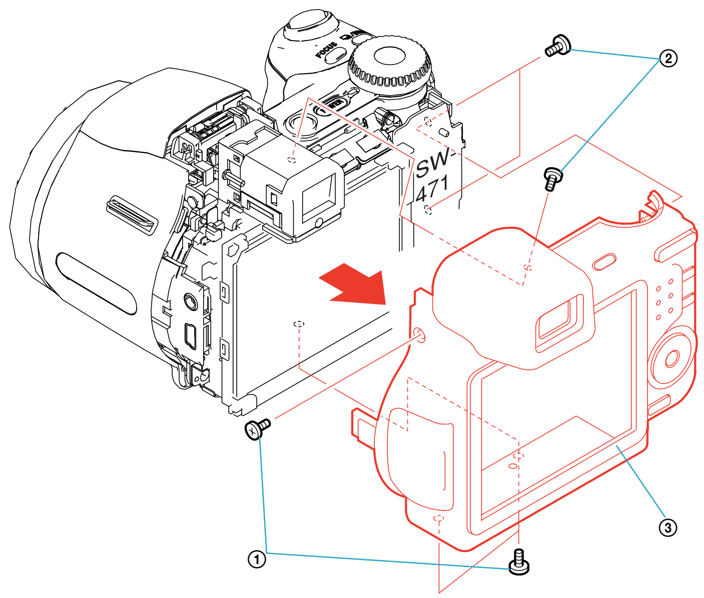


2. DISASSEMBLY

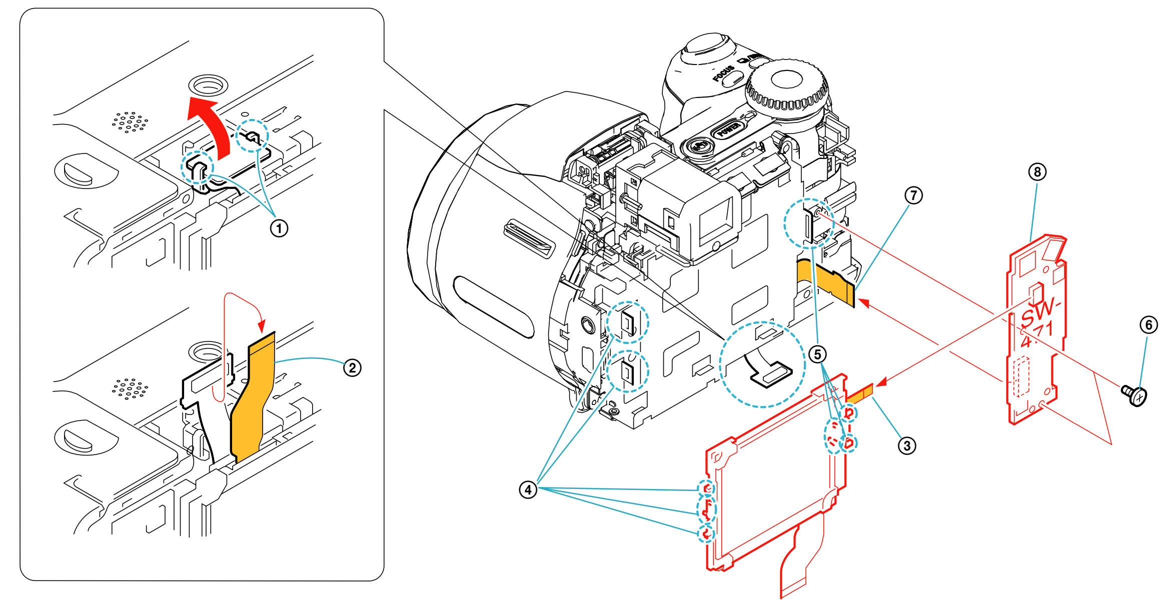
The following flow chart shows the disassembly procedure.

2-1. DISASSEMBLY



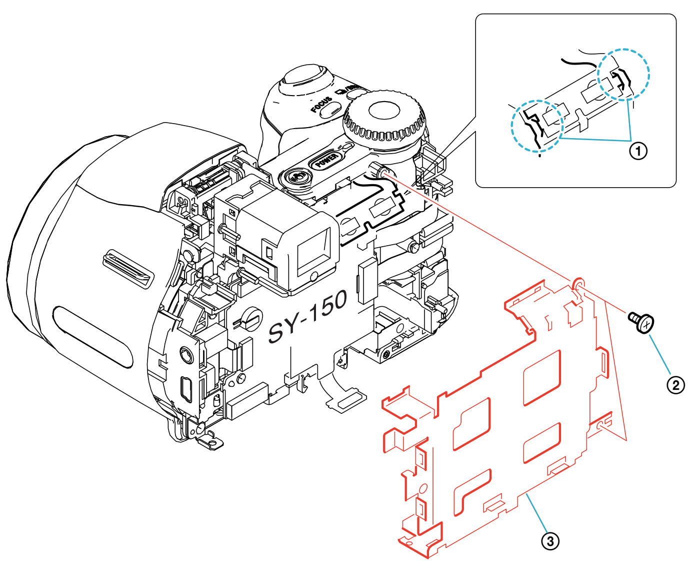


① Three screws (M1.7x4)
② Three screws (M1.7x4)
③ Cabinet (rear) section

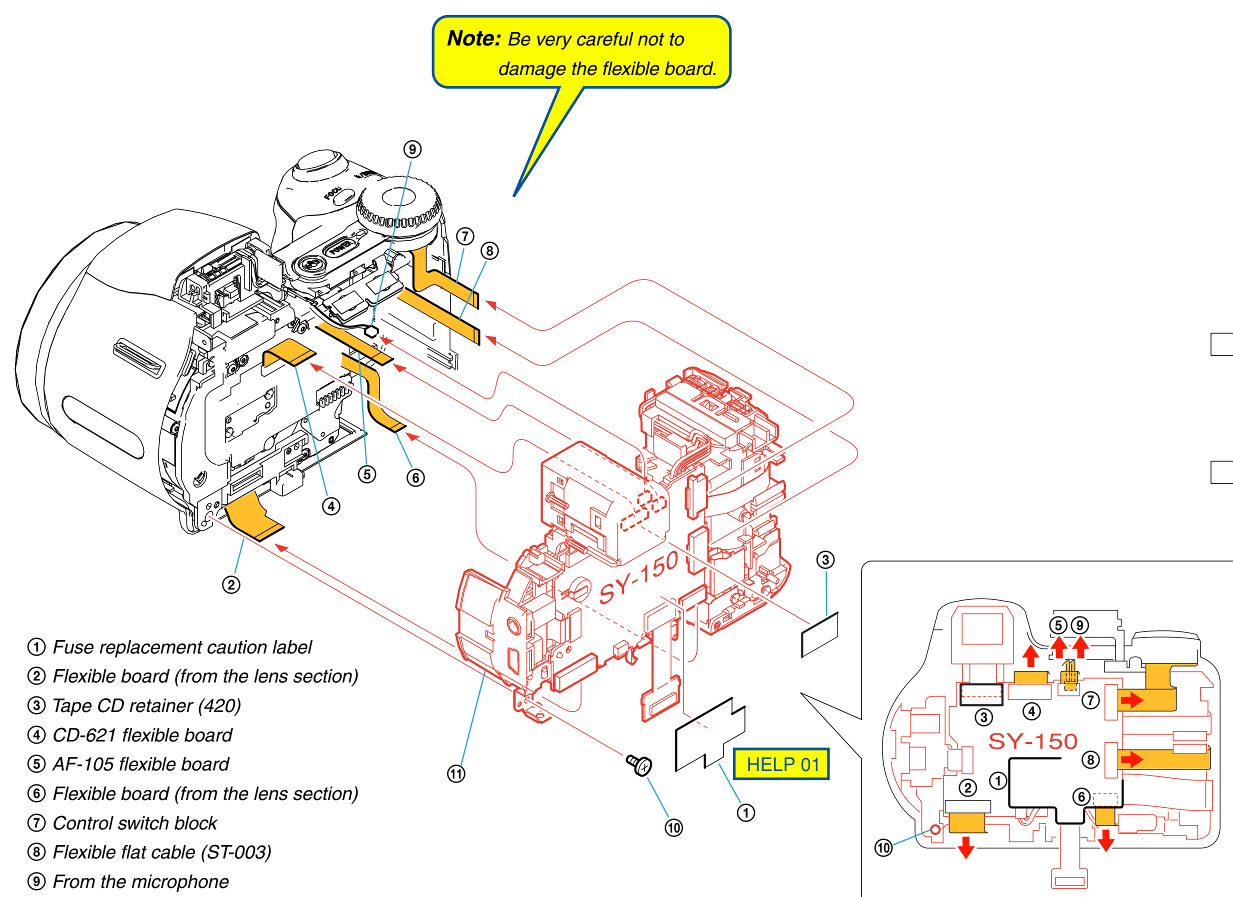


① Two claws
② Flexible board (from the LCD unit)
③ Flexible board
(from the light guide plate (3.0) block)

④ Two claws, two dowels
⑤ Claw, two dowels
⑥ Two tapping screws (M1.7x3.5)
⑦ SW-478 flexible board
⑧ SW-471 board



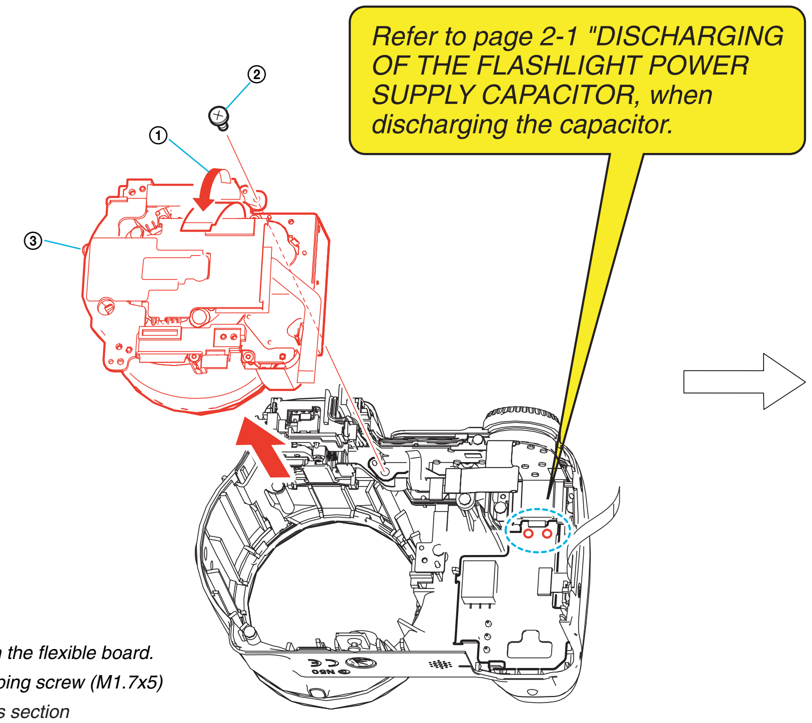
① Two claws
② Two tapping screws (M1.7x3.5)
③ LCD frame



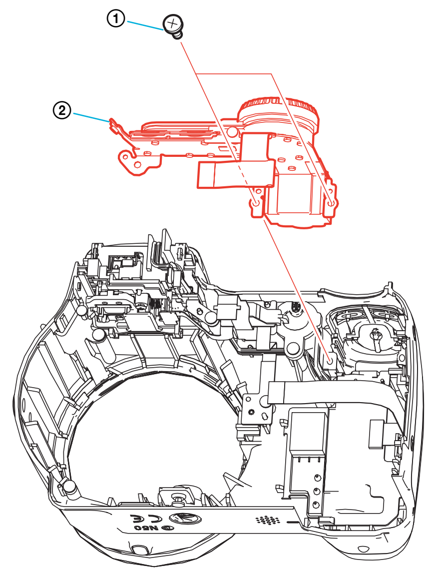
① Fuse replacement caution label
② Flexible board (from the lens section)
③ Tape CD retainer (420)
④ CD-621 flexible board
⑤ AF-105 flexible board
⑥ Flexible board (from the lens section)
⑦ Control switch block
⑧ Flexible flat cable (ST-003)
⑨ From the microphone
⑩ Tapping screw (M1.7x5)
⑪ Main section

A (See page 2-4)
B (See page 2-4)

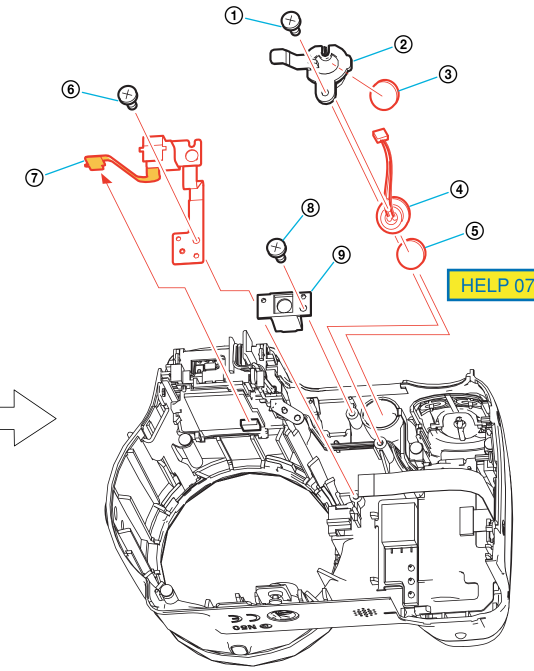
A



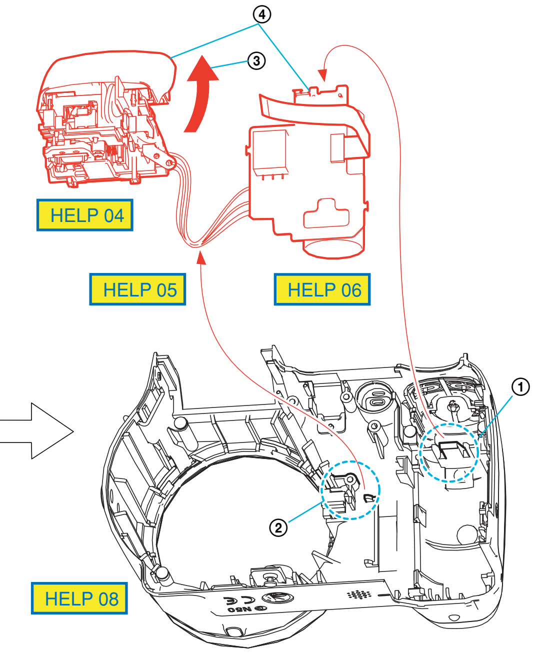
① Turn the flexible board.
② Tapping screw (M1.7x5)
③ Lens section



① Two tapping screws (M1.7x4)
② Control switch block

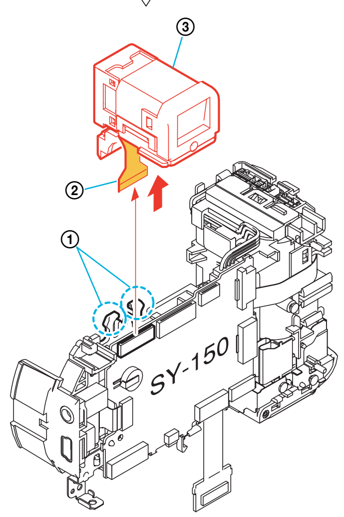


① Tapping screw (M1.7x4)
② Microphone holder
③ Microphone cushion (B)
④ Microphone
⑤ Microphone cushion
⑥ Tapping screw (M1.7x4)
⑦ AF-105 flexible board
⑧ Tapping screw (M1.7x4)
⑨ AF holder

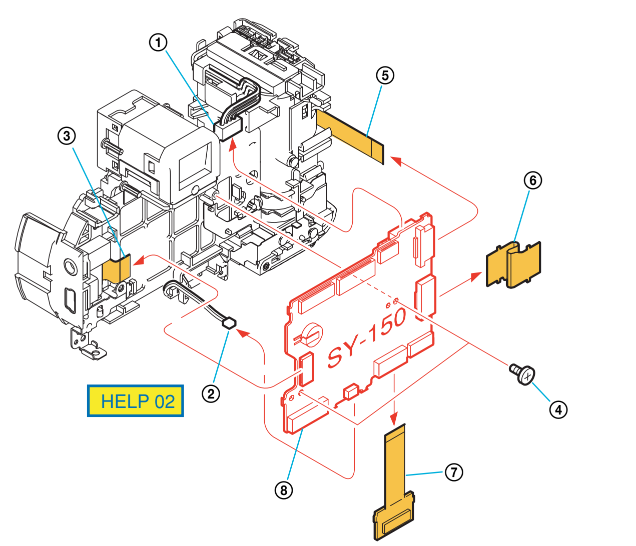


① Claw
② Three harnesses (HA-001) (Red, White, Blue)
③ Open the ST cover in the direction of the arrow.
④ ST section

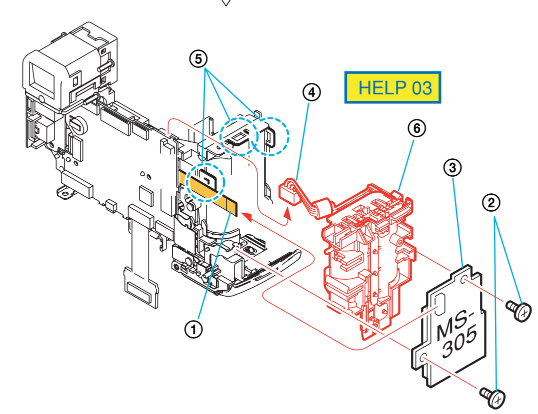
B



① Two claws
② Flexible board (from the LCD module)
③ EVF section



① Battery connector
② From the loudspeaker
③ JK-306 flexible board
④ Two tapping screws (M1.7x4)
⑤ Flexible flat cable (MS-030)
⑥ SW-478 flexible board
⑦ CK-161 flexible board
⑧ SY-150 board



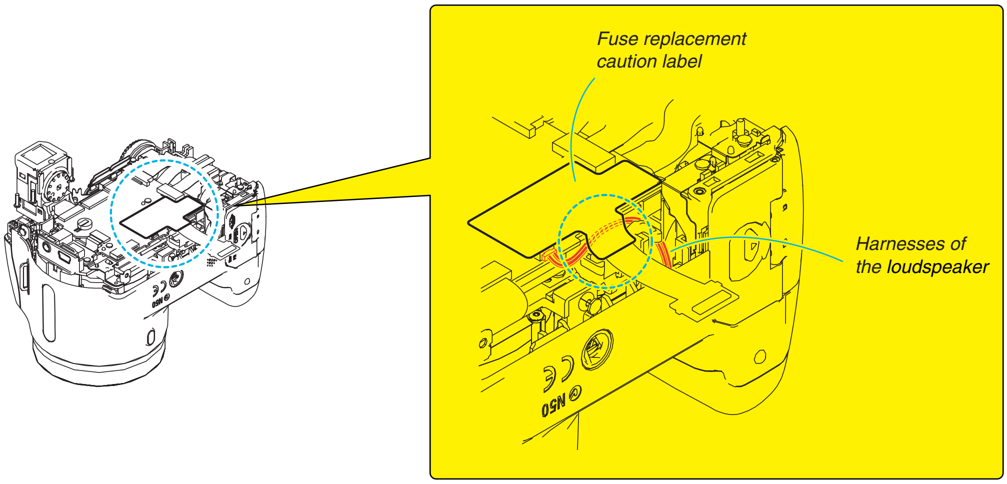
① Flexible flat cable (MS-030)
② Two tapping screws (M1.7x4)
③ MS-305 board
④ Battery connector
⑤ Three claws
⑥ Battery terminal board

HELP

Disassembling and assembling procedures that require attention are described here.

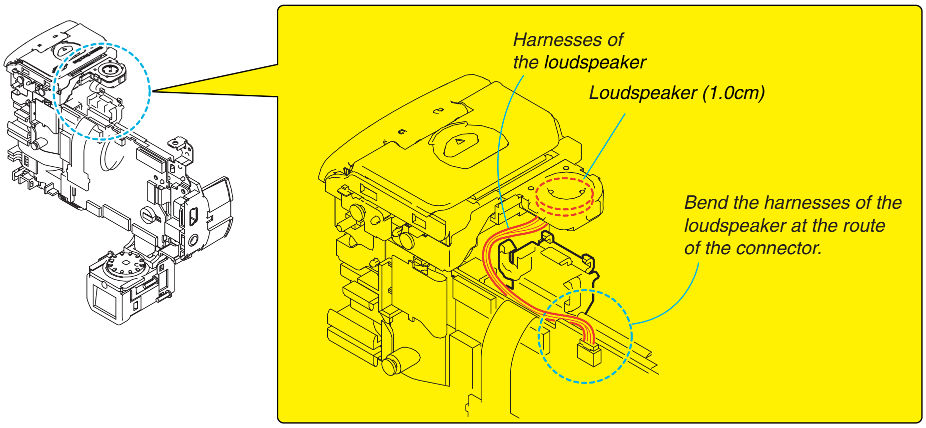
HELP 01

When attaching the fuse replacement caution label to the SY-150 board, cover the harness of the loudspeaker with the fuse replacement caution label.



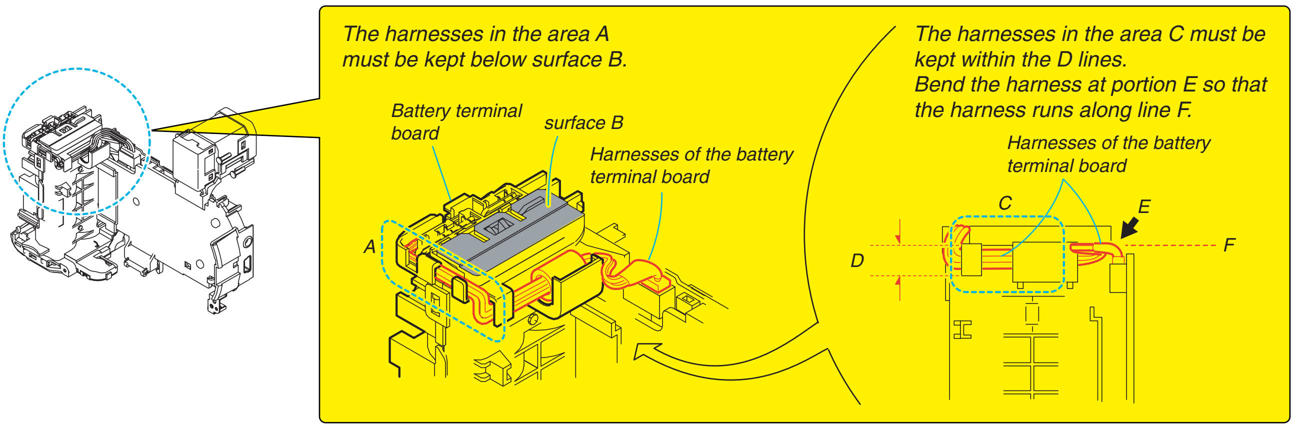
HELP 02

When installing the loudspeaker, route the harnesses of the loudspeaker as shown in the figure.



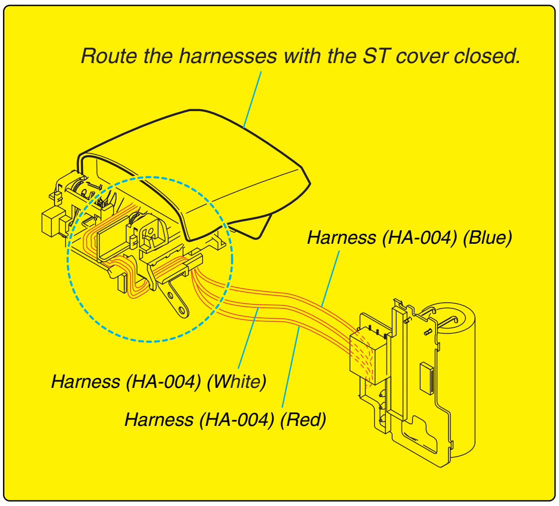
HELP 03

When installing the battery terminal board, route the harnesses of the battery terminal board as shown in the figure.



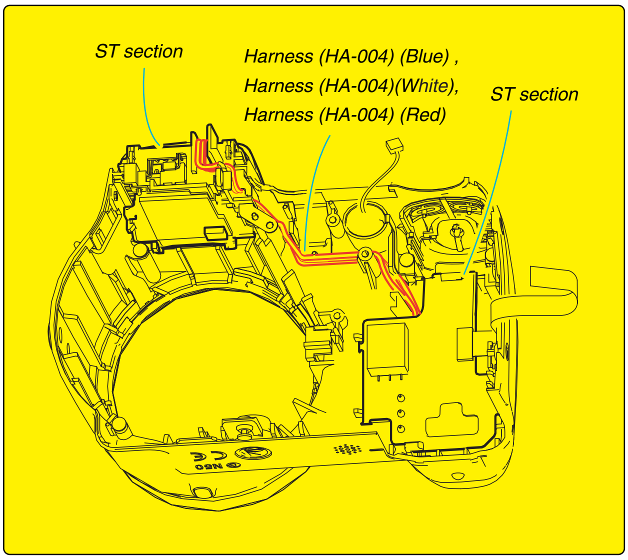
HELP 04

When installing the ST section, route the Harness (HA-004) (Blue) ,Harness (HA-004)(White), and Harness (HA-004) (Red) as shown in the figure.



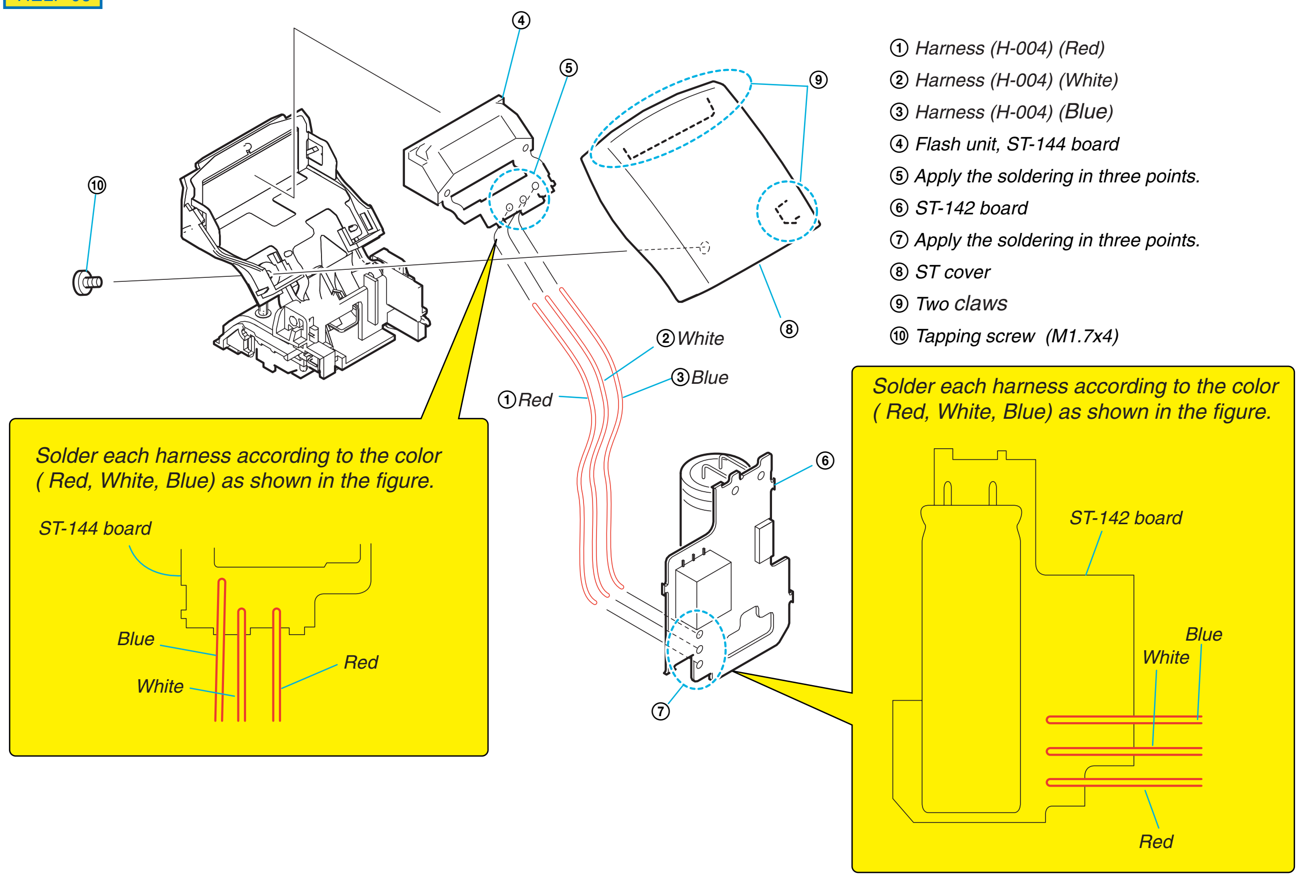
HELP 05

When installing the ST section, route the Harness (HA-004) (Blue) ,Harness (HA-004)(White), and Harness (HA-004) (Red) as shown in the figure.

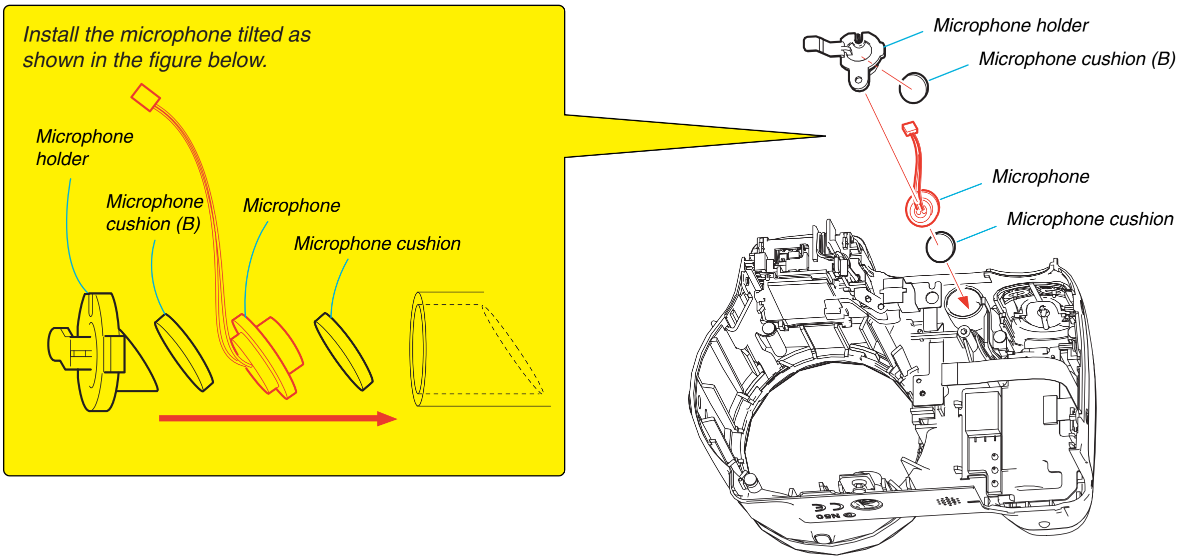


HELP 06

① Harness (H-004) (Red)
② Harness (H-004) (White)
③ Harness (H-004) (Blue)
④ Flash unit, ST-144 board
⑤ Apply the soldering in three points.
⑥ ST-142 board
⑦ Apply the soldering in three points.
⑧ ST cover
⑨ Two claws
⑩ Tapping screw (M1.7x4)

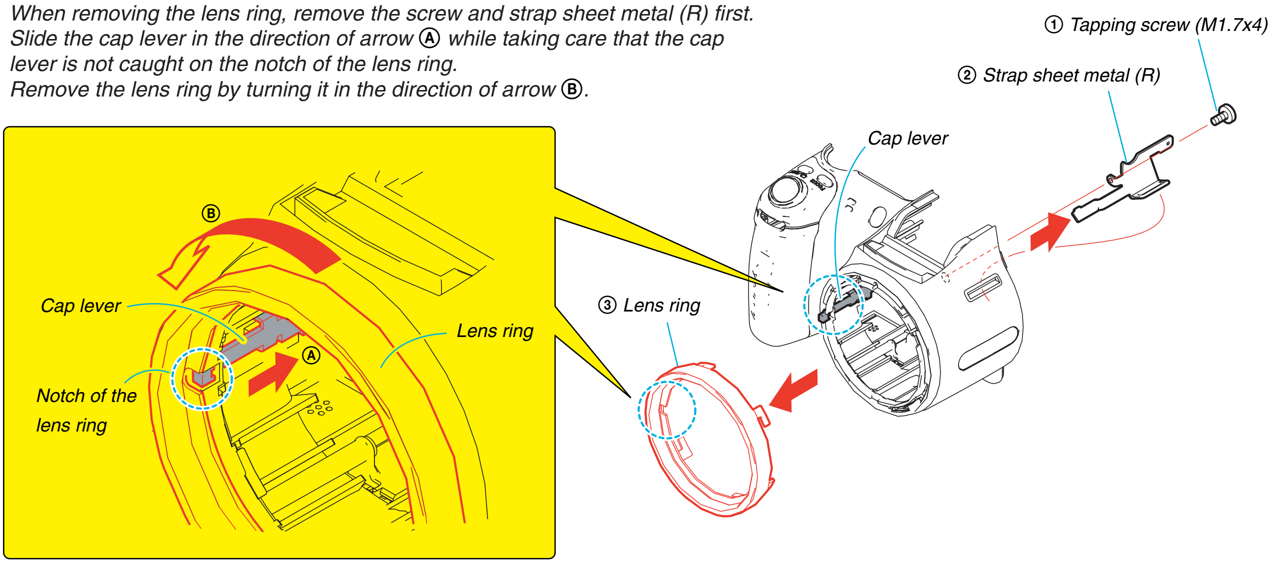


HELP 07



HELP 08

When removing the lens ring, remove the screw and strap sheet metal (R) first.
Slide the cap lever in the direction of arrow Ⓐ while taking care that the cap lever is not caught on the notch of the lens ring.
Remove the lens ring by turning it in the direction of arrow Ⓑ.



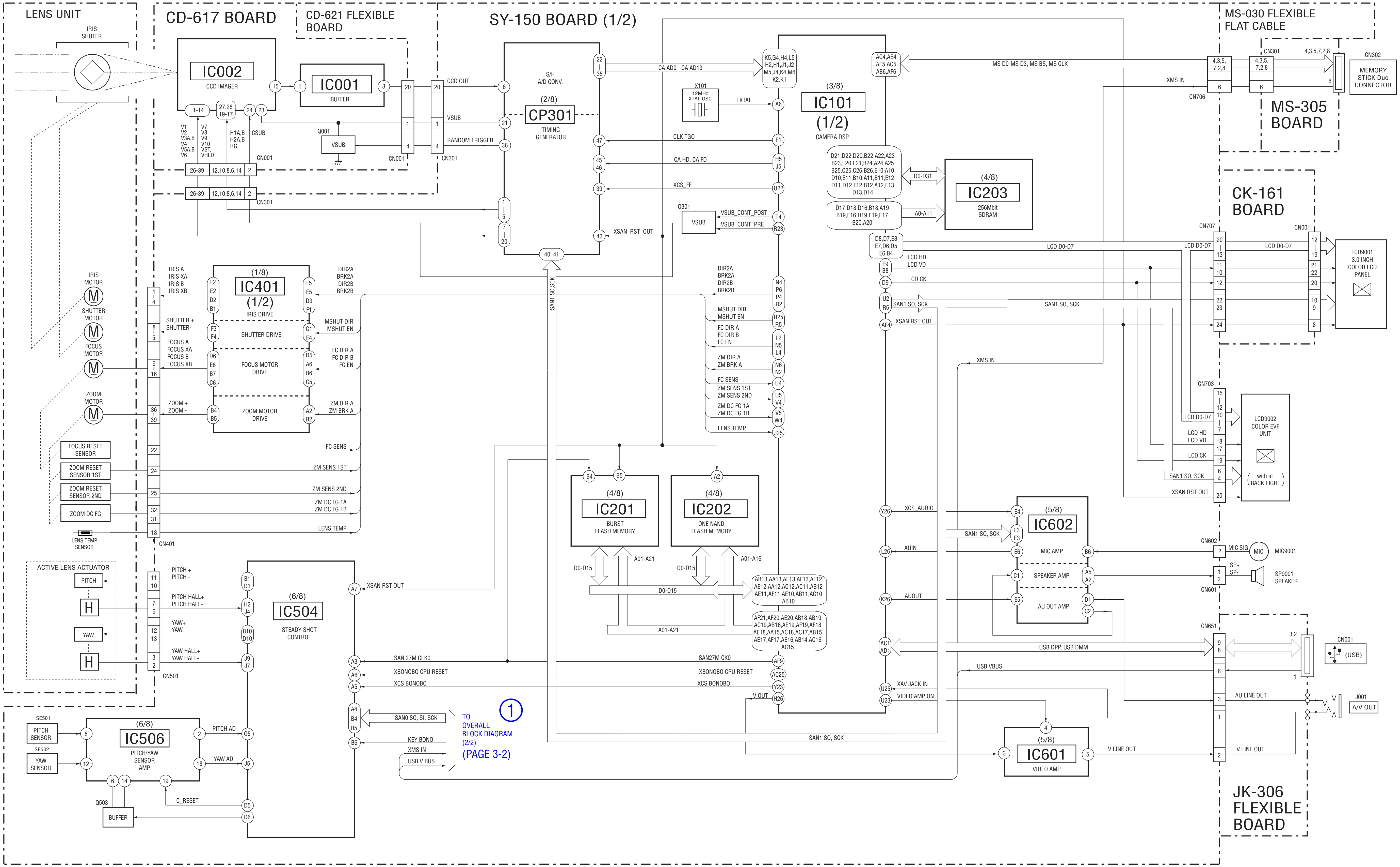
3. BLOCK DIAGRAMS

Link

Ver. 1.1 2006. 06

3-1. OVERALL BLOCK DIAGRAM (1/2)

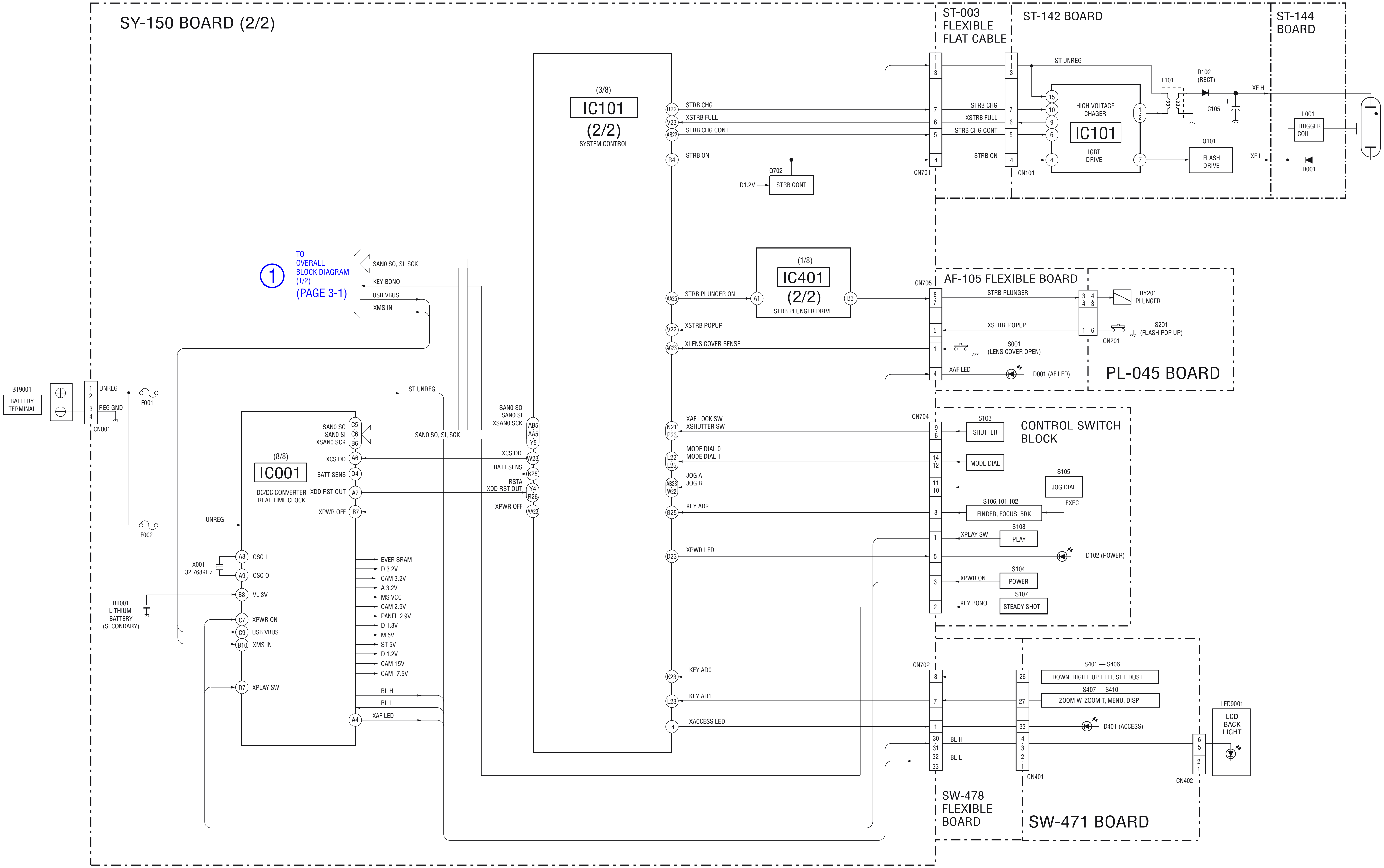
( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



DSC-H5_L2

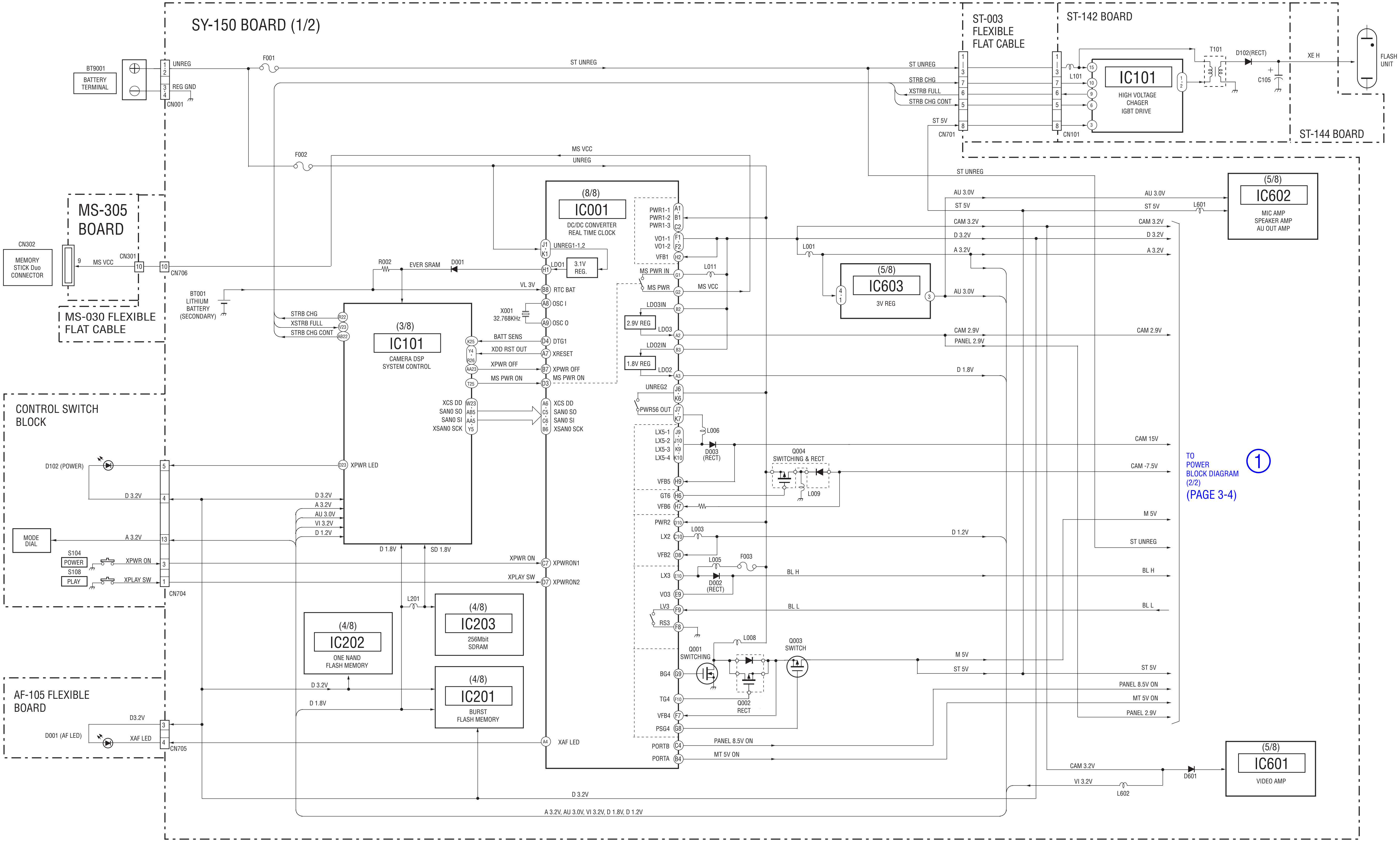
3-2. OVERALL BLOCK DIAGRAM (2/2)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



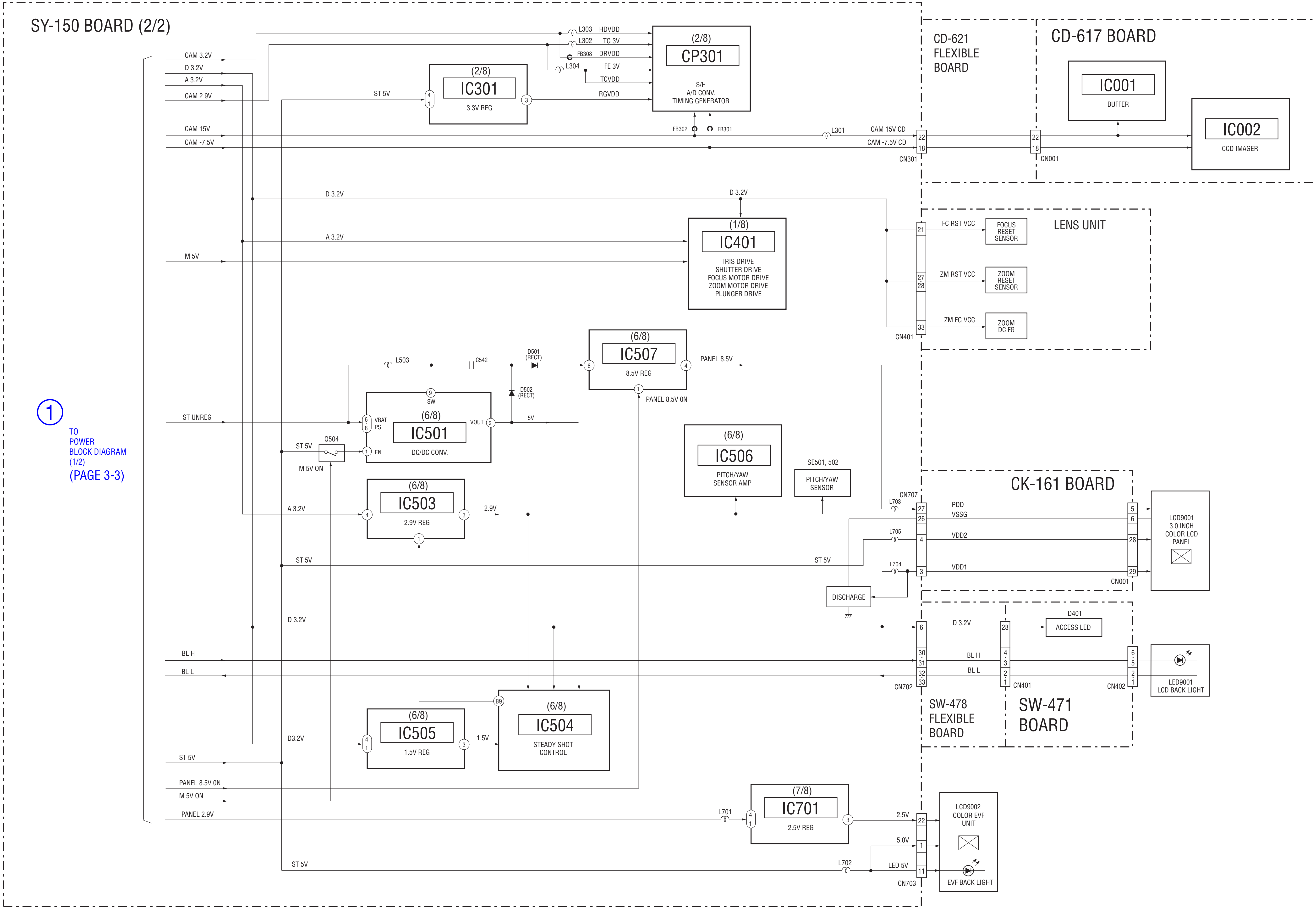
3-3. POWER BLOCK DIAGRAM (1/2)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



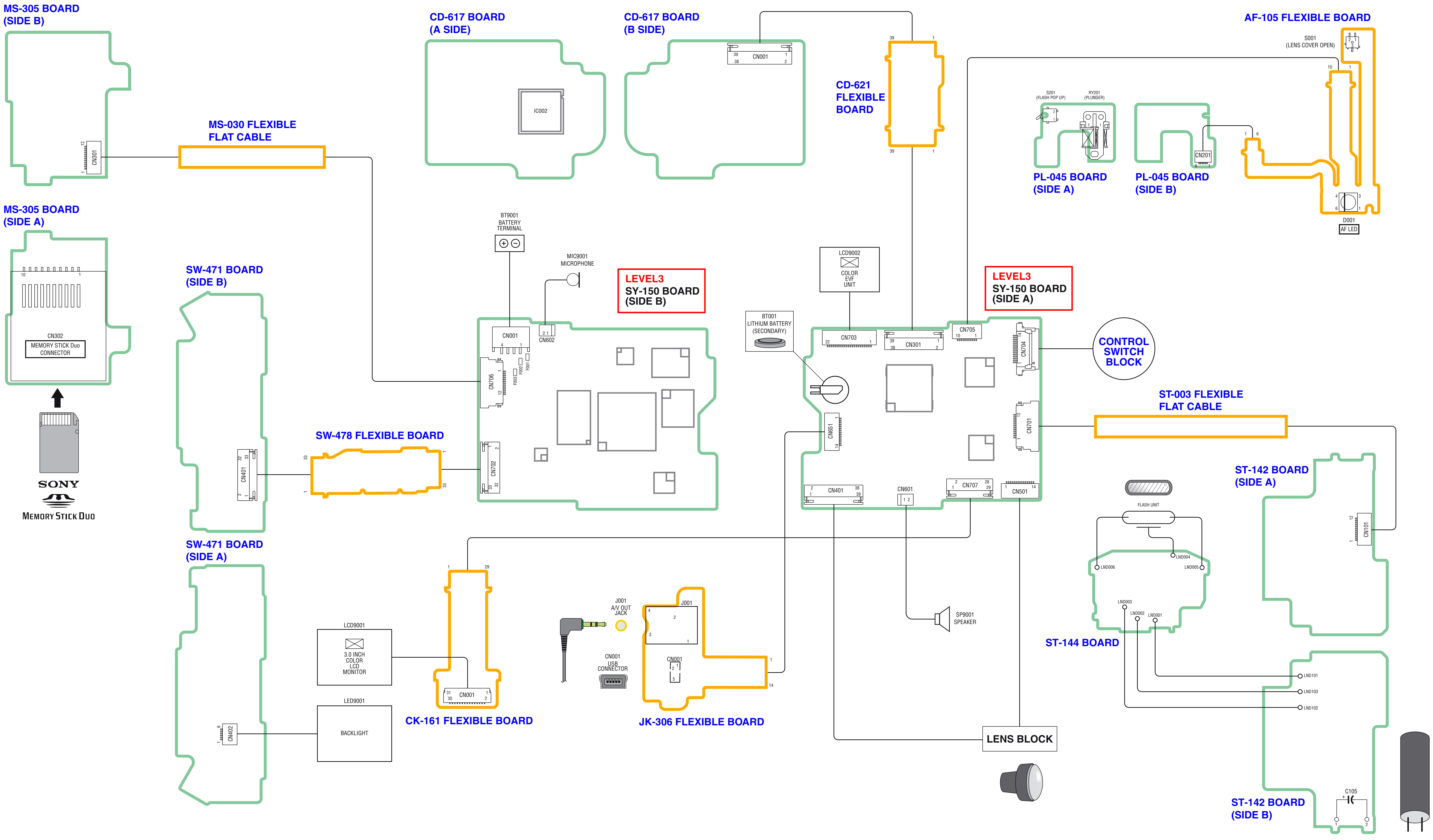
3-4. POWER BLOCK DIAGRAM (2/2)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM



4-2. SCHEMATIC DIAGRAMS

Link

4-2. SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For schematic diagrams)

- All capacitors are in µF unless otherwise noted. pF : µµF. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. kΩ=1000 Ω, MΩ=1000 kΩ.
- Caution when replacing chip parts. New parts must be attached after removal of chip. Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

Example	C541	L452
	22U	10UH
	TA A	2520

Kinds of capacitor (TA)
Temperature characteristics (A)
External dimensions (mm) (2520)

- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used. In such cases, the unused circuits may be indicated.
- Parts with * differ according to the model/destination. Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- (symbol) : non flammable resistor
- (symbol) : fusible resistor
- (symbol) : panel designation
- (red line) : B+ Line
- (red dashed line) : B– Line
- (arrow) : IN/OUT direction of (+,–) B LINE.
- (red box) : adjustment for repair.

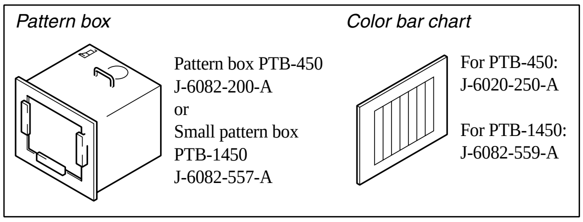
(Measuring conditions voltage)

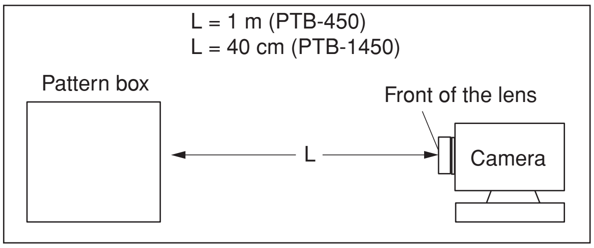
- Voltages are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values. (VOM of DC 10 MΩ input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

Precautions for Replacement of imager

- If the imager has been replaced, carry out all the adjustments for the camera section.
- As the imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC. In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

1. Connection





2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

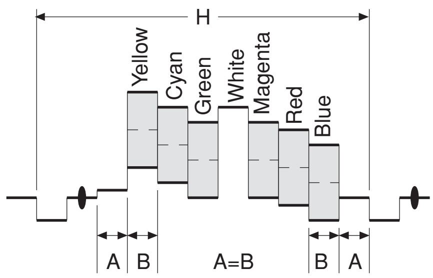


Fig. a (Video output terminal output waveform)

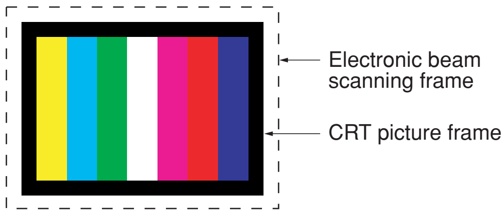
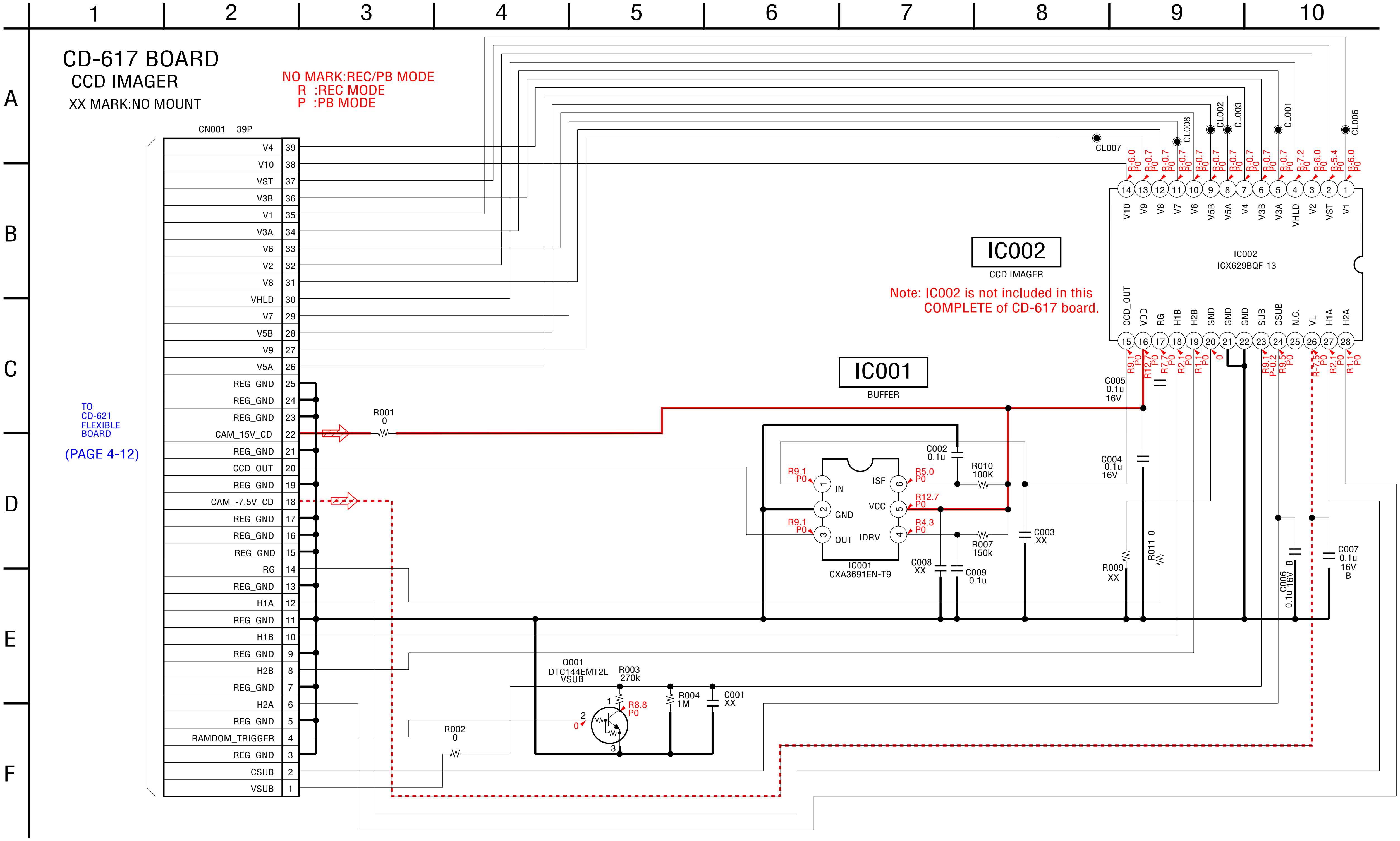


Fig.b (Picture on monitor TV)

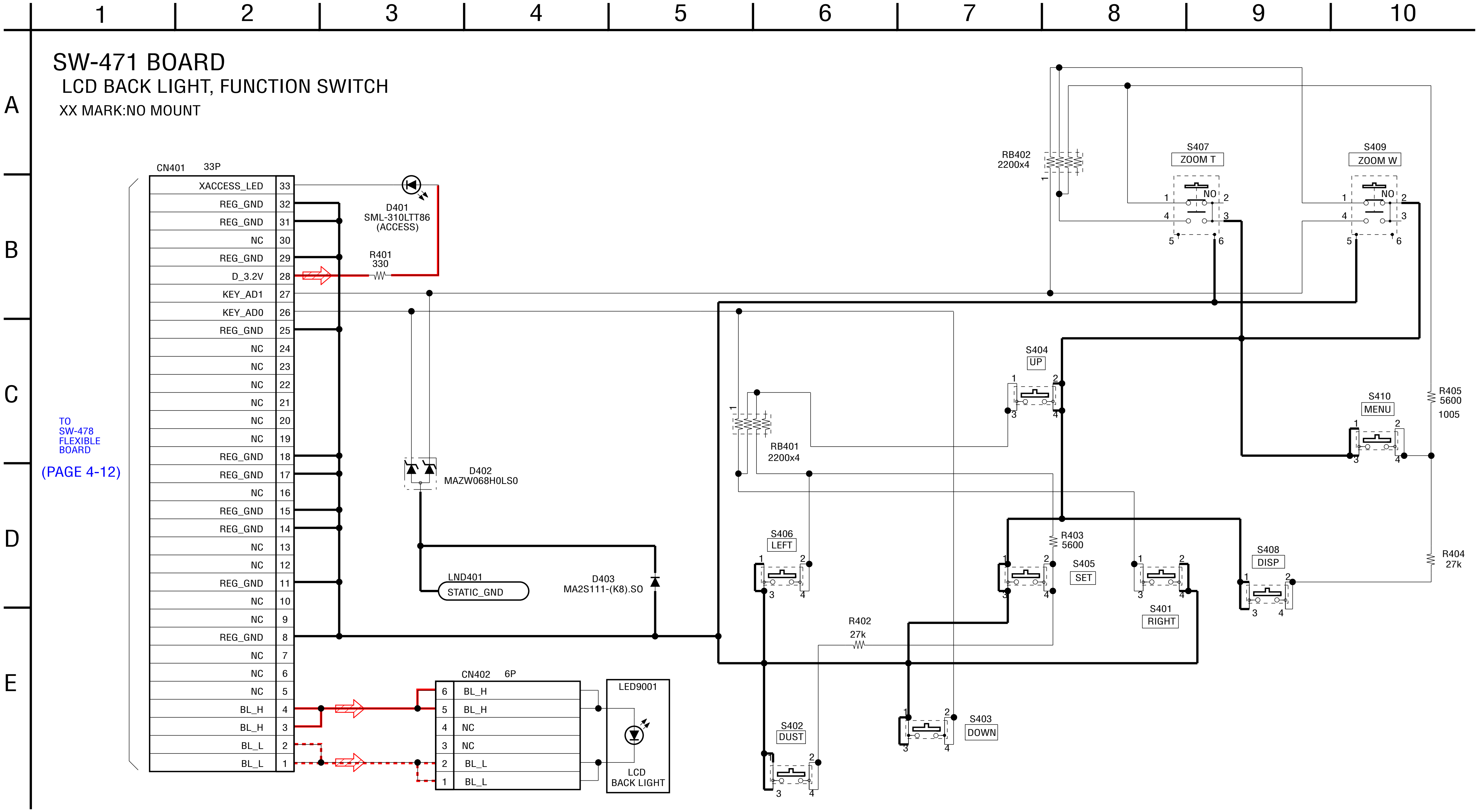
When indicating parts by reference number, please include the board name.

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



CD-617 BOARD
CCD IMAGER
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
CN001 39P
TO CD-621 FLEXIBLE BOARD
(PAGE 4-12)
V4 V10 VST V3B V1 V3A V6 V2 V8 VHLD V7 V5B V9 V5A
REG_GND CAM_15V_CD CCD_OUT CAM_-7.5V_CD RG H1A H1B H2B H2A RAMDOM_TRIGGER CSUB VSUB
R001 0
IC001
BUFFER
IC001 CXA3691EN-T9
IN GND OUT ISF VCC IDRV
C002 0.1u
R010 100K
R007 150k
C003 XX
C008 XX
C009 0.1u
IC002
CCD IMAGER
Note: IC002 is not included in this COMPLETE of CD-617 board.
IC002 ICX629BQF-13
CCD_OUT VDD RG H1B H2B GND GND GND SUB CSUB N.C. VL H1A H2A
CL001 CL002 CL003 CL006 CL007 CL008
C005 0.1u 16V
C004 0.1u 16V
R009 XX
R011 0
C006 0.1u 16V B
C007 0.1u 16V B
Q001 DTC144EMT2L VSUB
R003 270k
R004 1M
C001 XX
R002 0

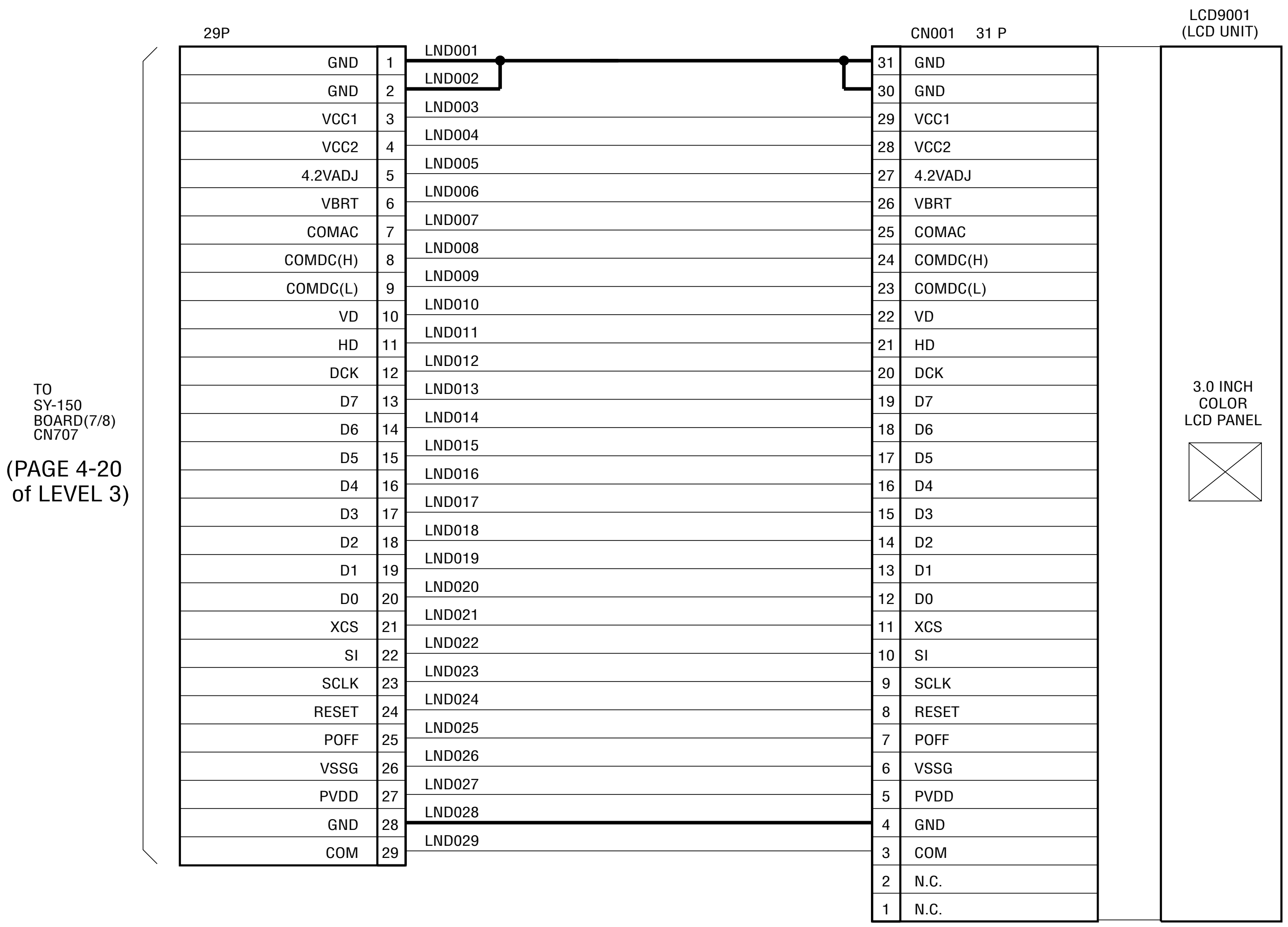
SW-471 BOARD
LCD BACK LIGHT, FUNCTION SWITCH
XX MARK:NO MOUNT



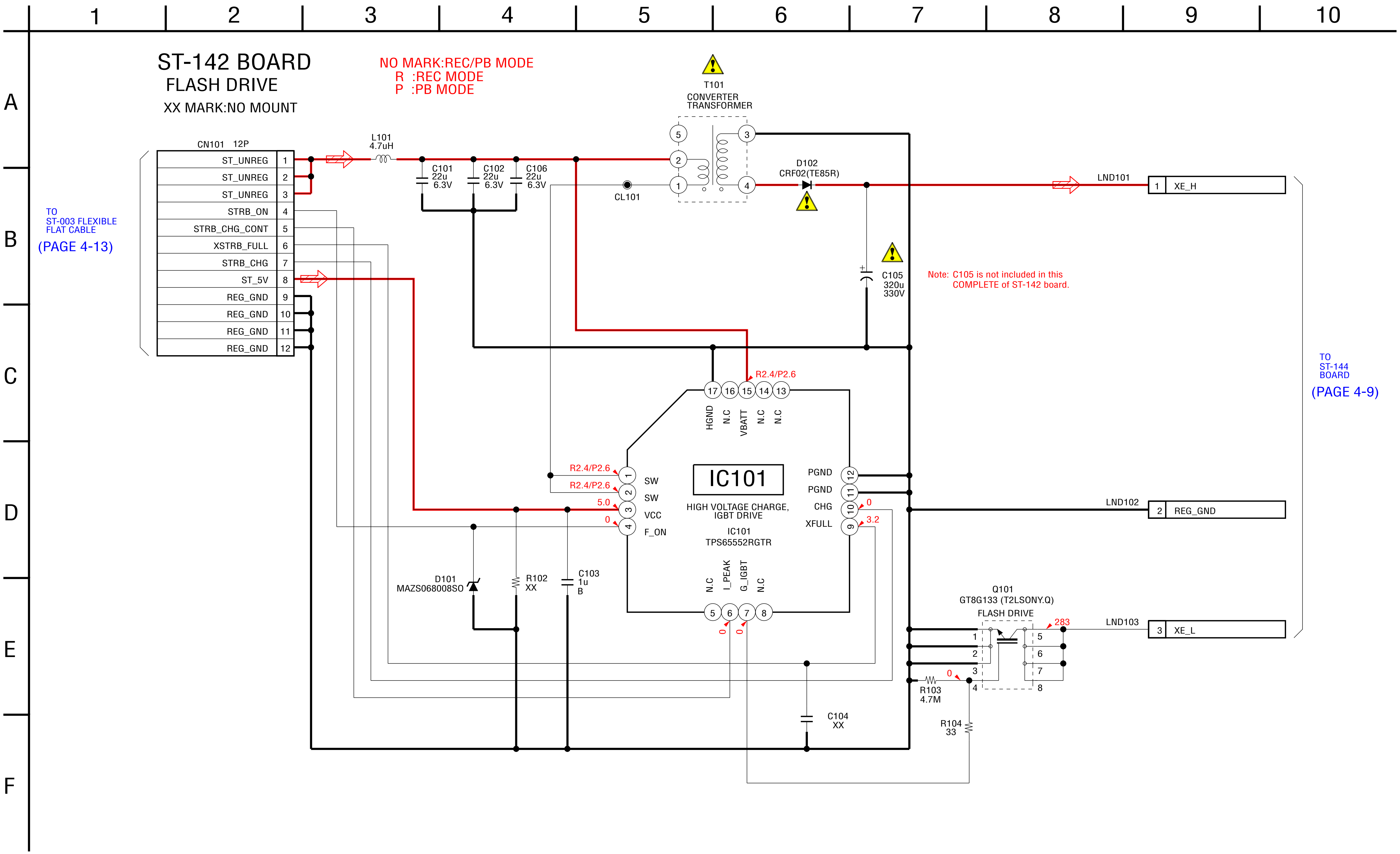
CK-161 FLEXIBLE BOARD

LCD PANEL

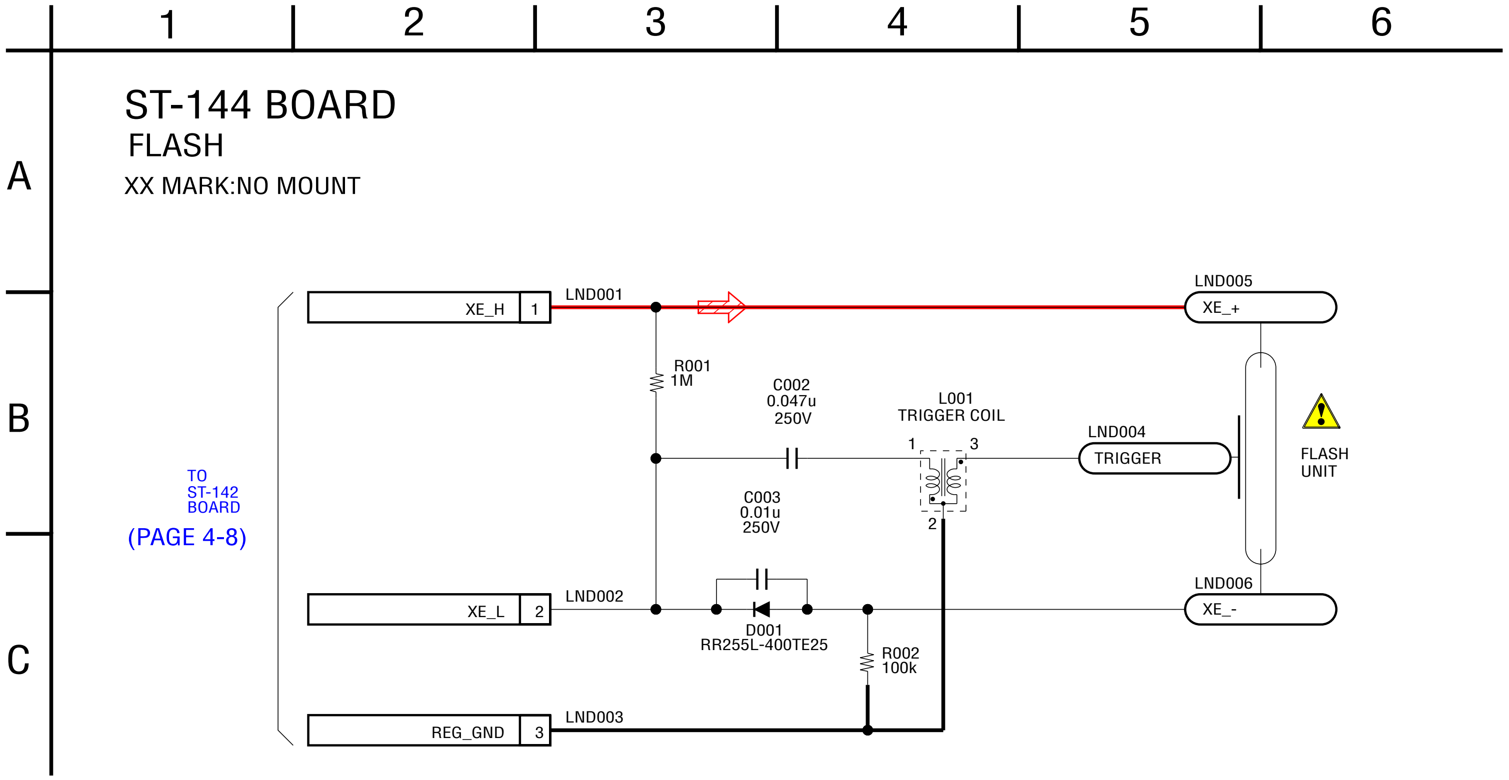
XX MARK:NO MOUNT

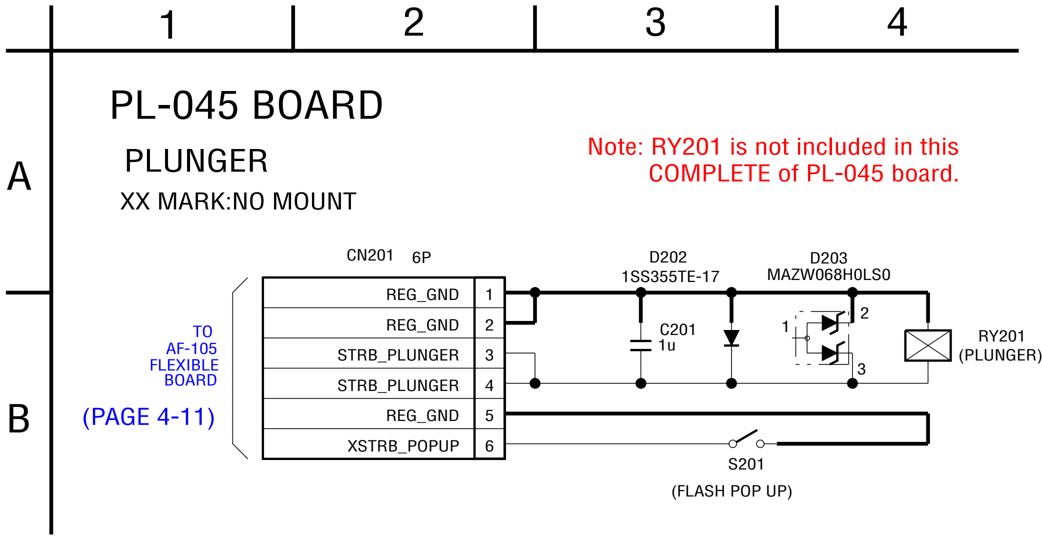


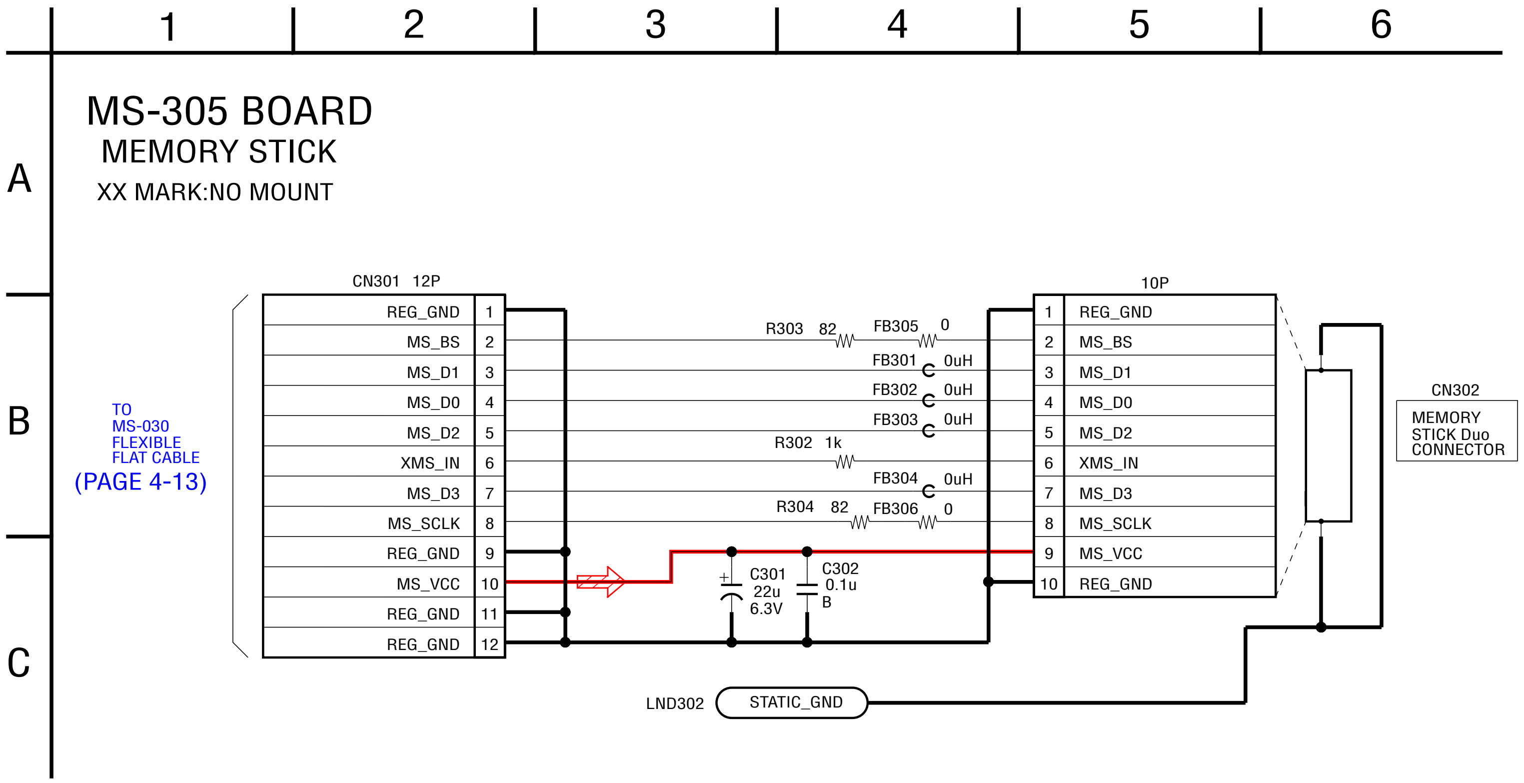
• Refer to page 4-3 for mark ⚠.



• Refer to page 4-3 for mark ⚠.



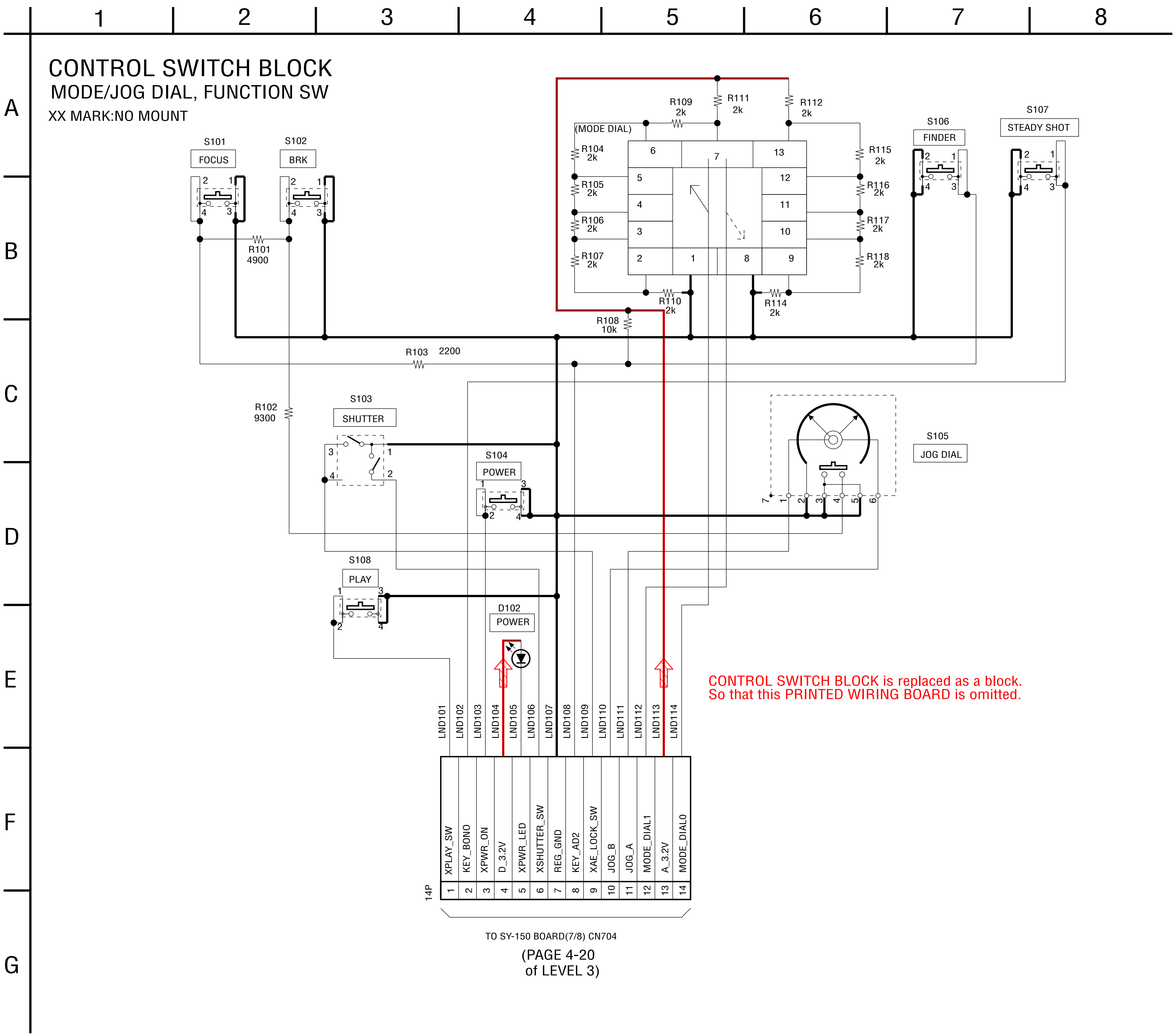




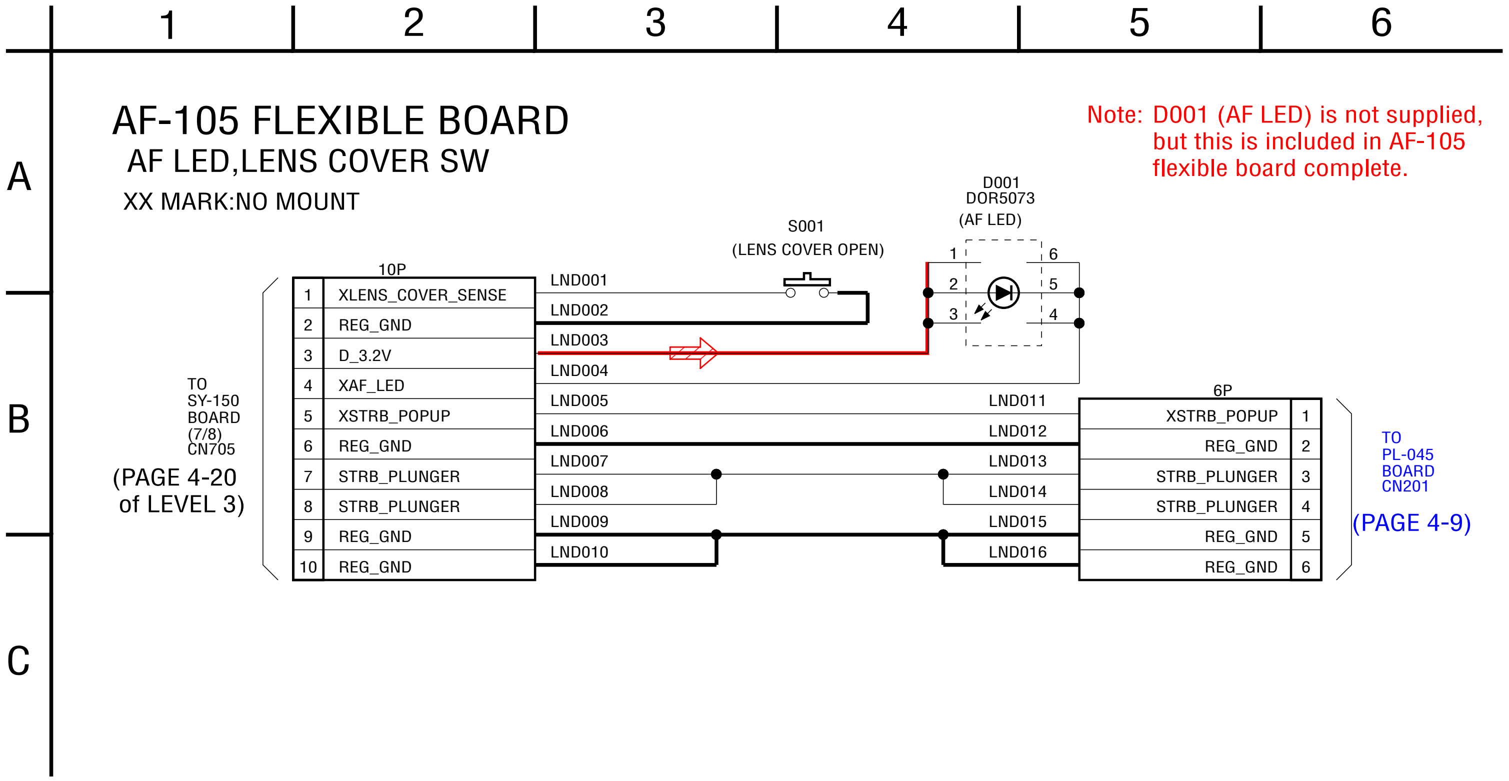
CONTROL SWITCH BLOCK

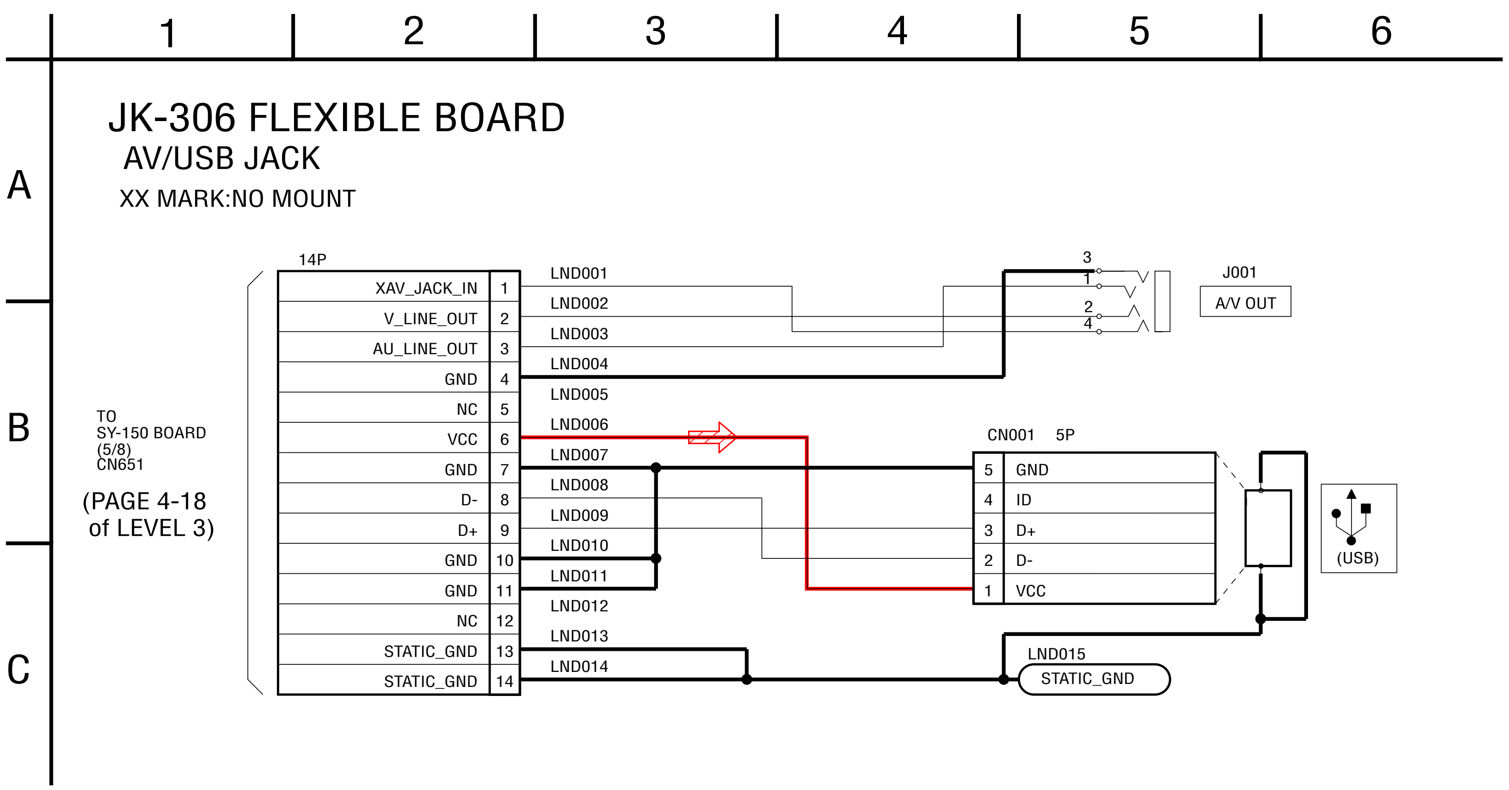
MODE/JOG DIAL, FUNCTION SW

XX MARK:NO MOUNT



CONTROL SWITCH BLOCK is replaced as a block.
So that this PRINTED WIRING BOARD is omitted.

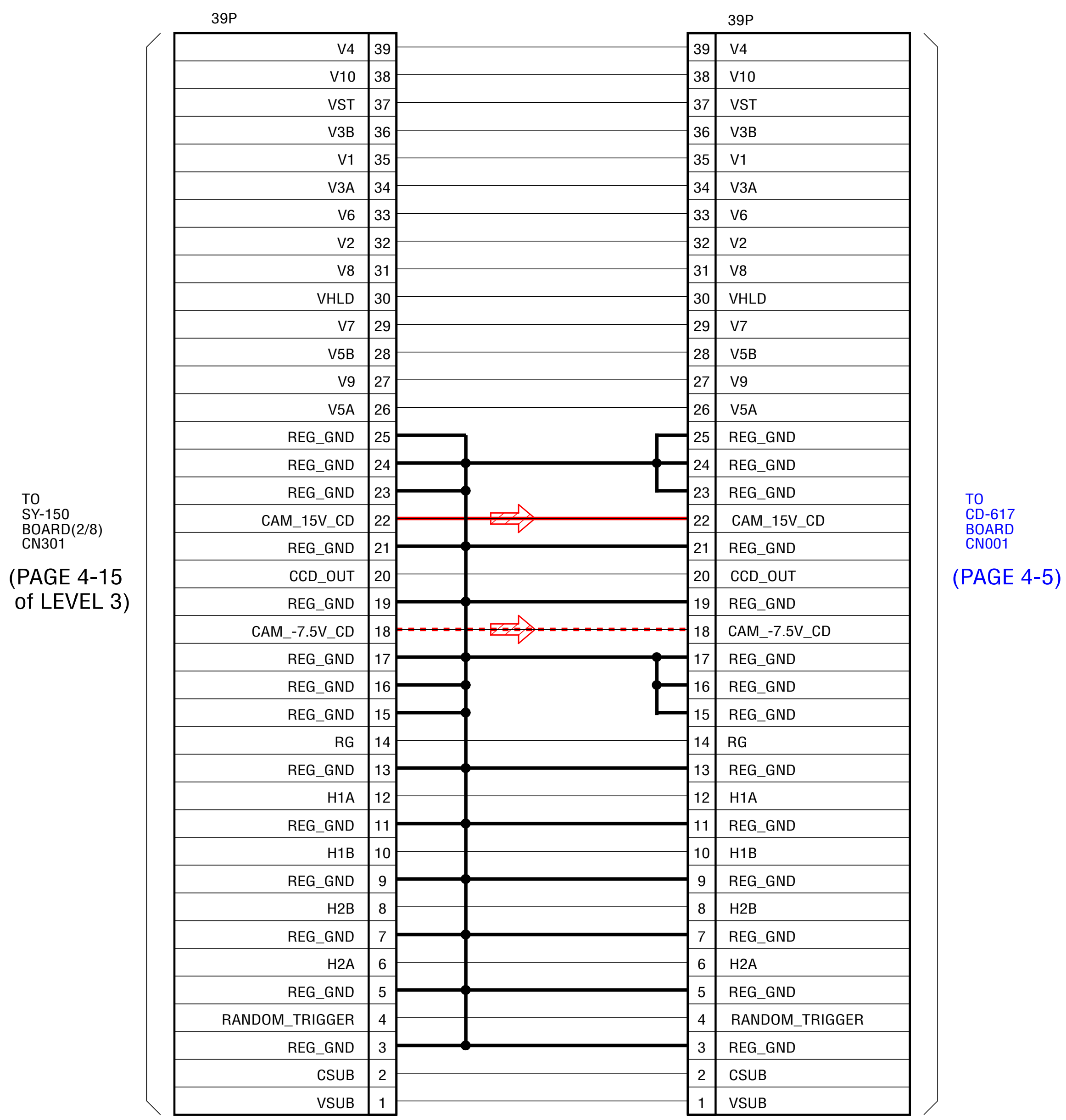

AF-105 FLEXIBLE BOARD
AF LED,LENS COVER SW
XX MARK:NO MOUNT
Note: D001 (AF LED) is not supplied, but this is included in AF-105 flexible board complete.
D001
DOR5073
(AF LED)
S001
(LENS COVER OPEN)
10P
XLENS_COVER_SENSE
REG_GND
D_3.2V
XAF_LED
XSTRB_POPUP
REG_GND
STRB_PLUNGER
STRB_PLUNGER
REG_GND
REG_GND
LND001
LND002
LND003
LND004
LND005
LND006
LND007
LND008
LND009
LND010
LND011
LND012
LND013
LND014
LND015
LND016
6P
XSTRB_POPUP
REG_GND
STRB_PLUNGER
STRB_PLUNGER
REG_GND
REG_GND
TO SY-150 BOARD (7/8) CN705
(PAGE 4-20 of LEVEL 3)
TO PL-045 BOARD CN201
(PAGE 4-9)


JK-306 FLEXIBLE BOARD
AV/USB JACK
XX MARK:NO MOUNT
14P
XAV_JACK_IN
V_LINE_OUT
AU_LINE_OUT
GND
NC
VCC
GND
D-
D+
GND
GND
NC
STATIC_GND
STATIC_GND
LND001
LND002
LND003
LND004
LND005
LND006
LND007
LND008
LND009
LND010
LND011
LND012
LND013
LND014
LND015
J001
A/V OUT
CN001 5P
GND
ID
D+
D-
VCC
(USB)
STATIC_GND
TO SY-150 BOARD (5/8) CN651
(PAGE 4-18 of LEVEL 3)

CD-621 FLEXIBLE BOARD

SY-CD RELAY

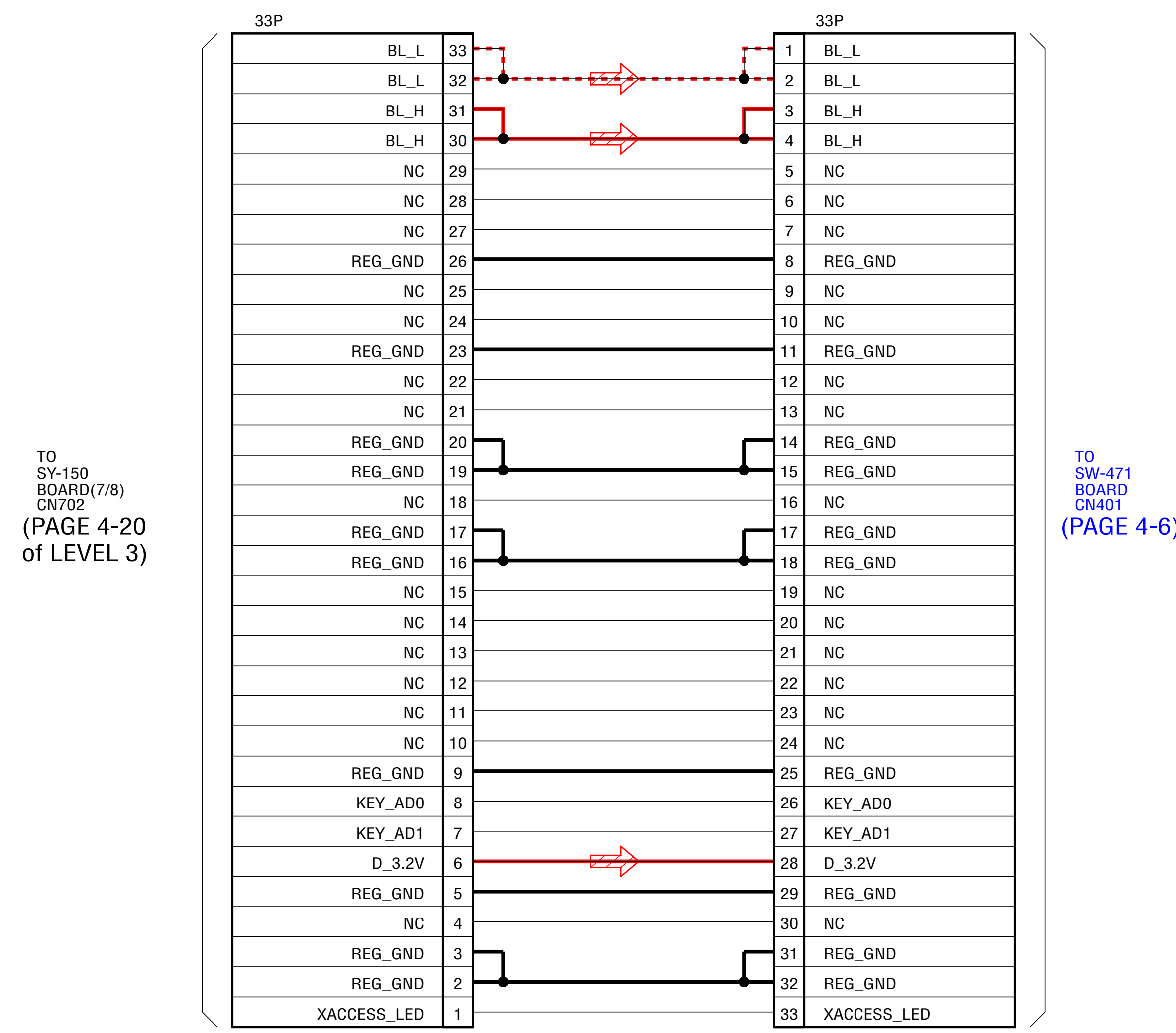
XX MARK:NO MOUNT



SW-478 FLEXIBLE BOARD

SY-SW RELAY

XX MARK:NO MOUNT

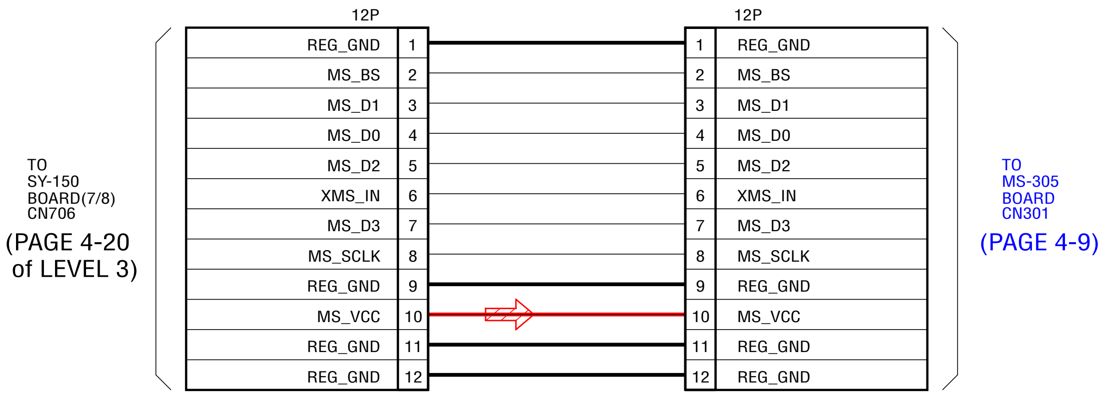


1 2 3 4 5

MS-030 FLEXIBLE FLAT CABLE

SY-MS RELAY

XX MARK:NO MOUNT



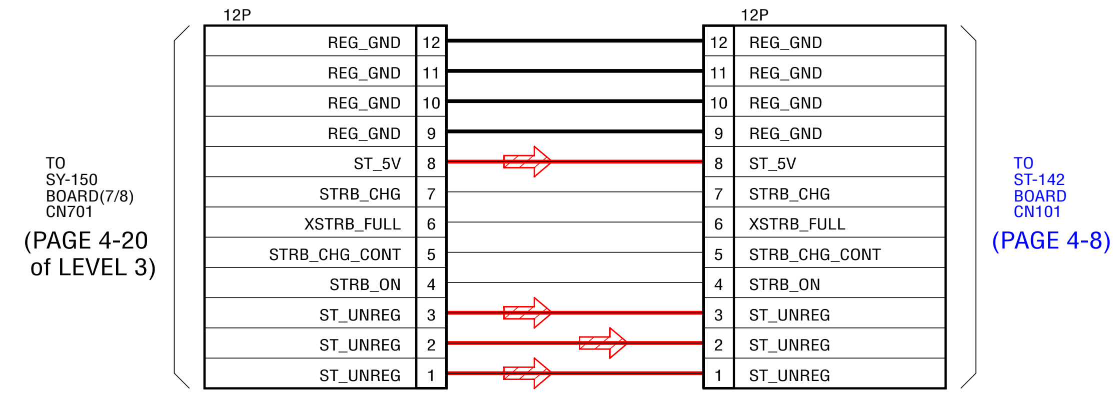
MS-030 FLEXIBLE FLAT CABLE is replaced as a block.
So that this PRINTED WIRING BOARD is omitted.

1 2 3 4 5

ST-003 FLEXIBLE FLAT CABLE

SY-ST RELAY

XX MARK:NO MOUNT



ST-003 FLEXIBLE FLAT CABLE is replaced as a block.
So that this PRINTED WIRING BOARD is omitted.

Schematic diagram of the SY-150 board and CH-199 board are not shown.
Pages from 4-14 to 4-22 are not shown.

4-3. PRINTED WIRING BOARDS

Link

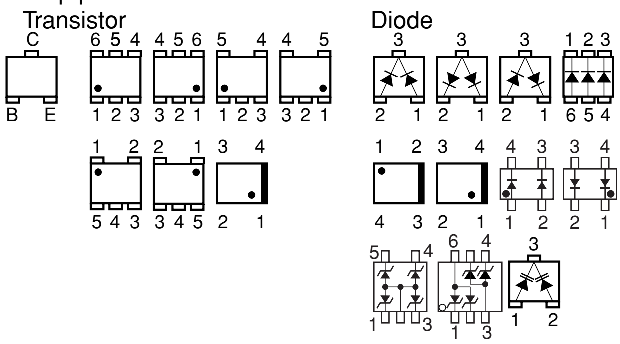
4-3. PRINTED WIRING BOARDS

THIS NOTE IS COMMON FOR WIRING BOARDS
(In addition to this, the necessary note is printed in each block)

(For printed wiring boards)

- : Uses unleaded solder.
- : Pattern from the side which enables seeing.
  (The other layers' patterns are not indicated)
- Through hole is omitted.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

- Chip parts.

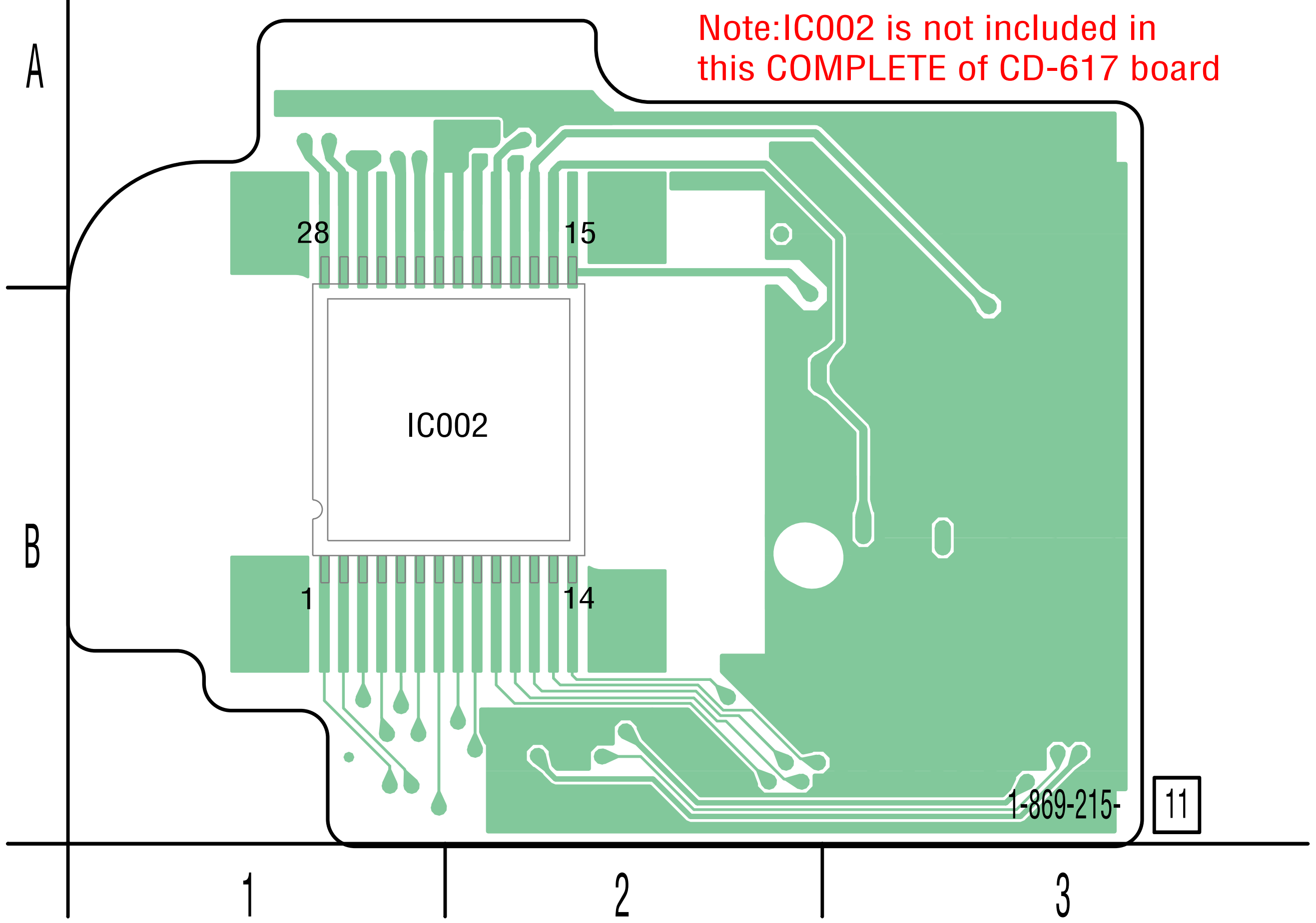


4-3. PRINTED WIRING BOARDS

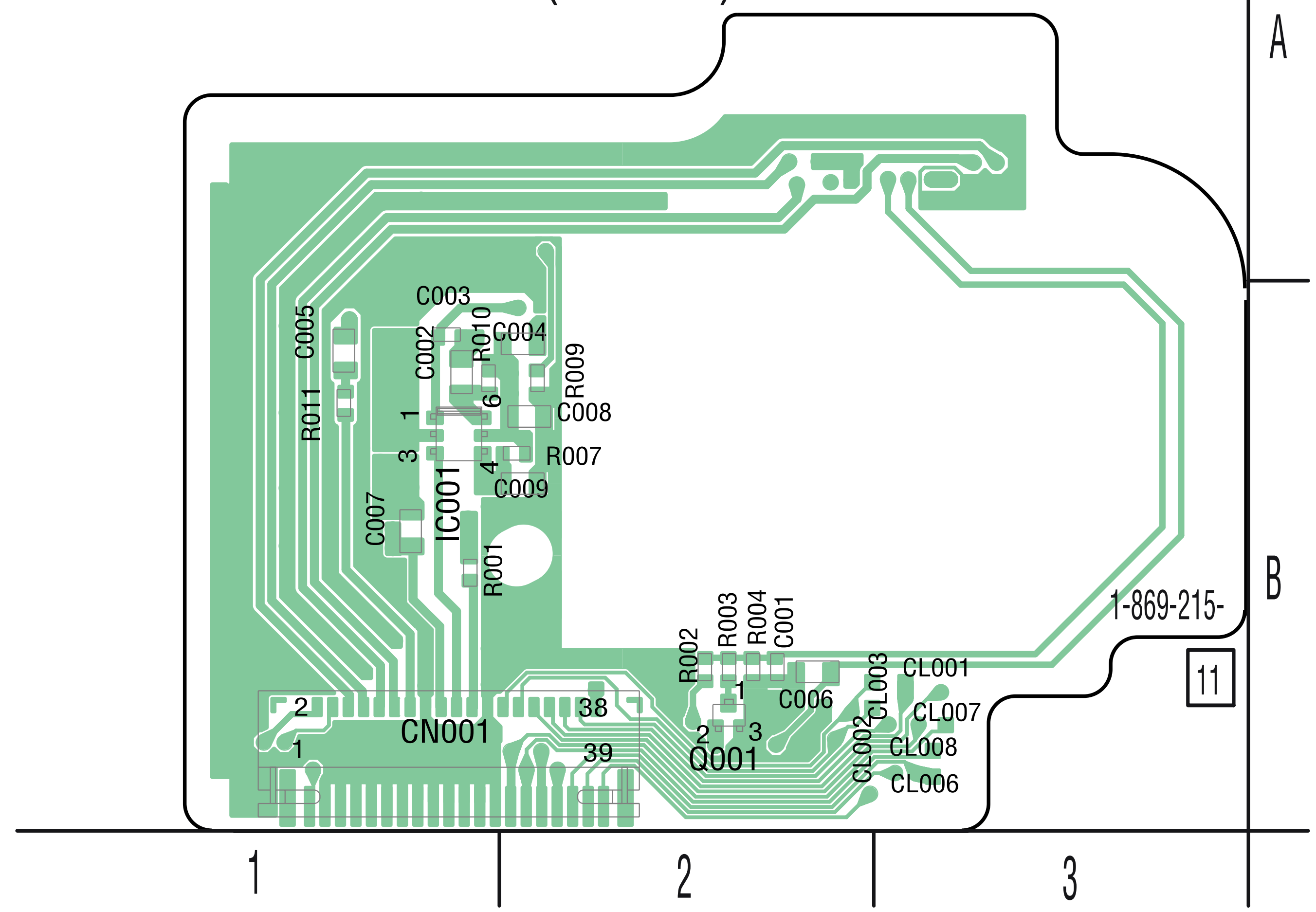
CD-617 (4 layers), SW-471 (4 layers)

• : Uses unleaded solder.

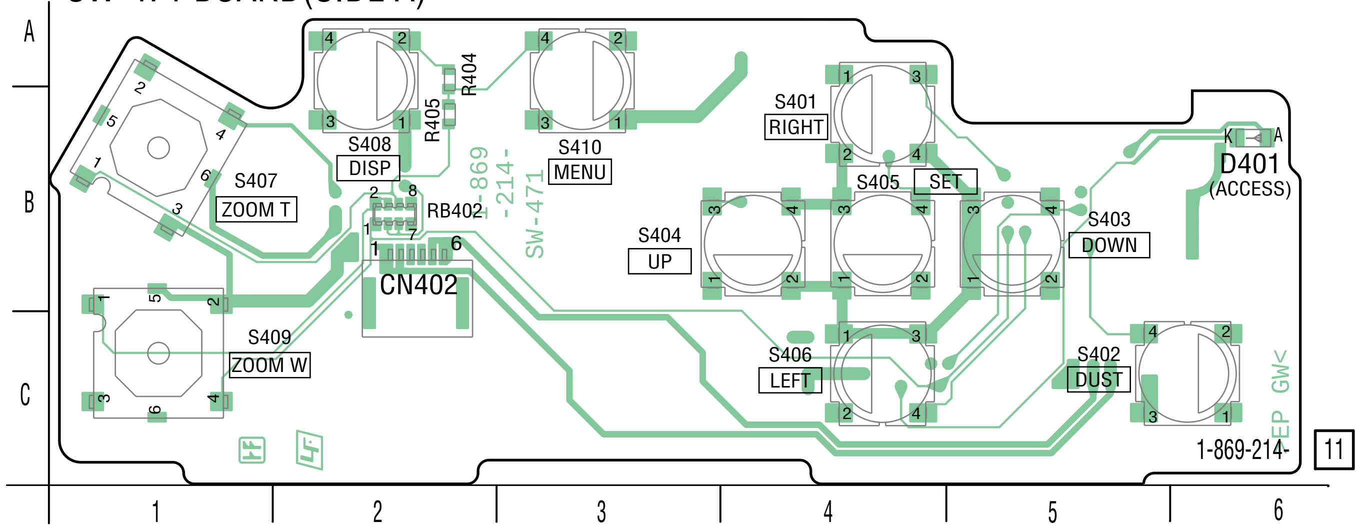
CD-617 BOARD(SIDE A)



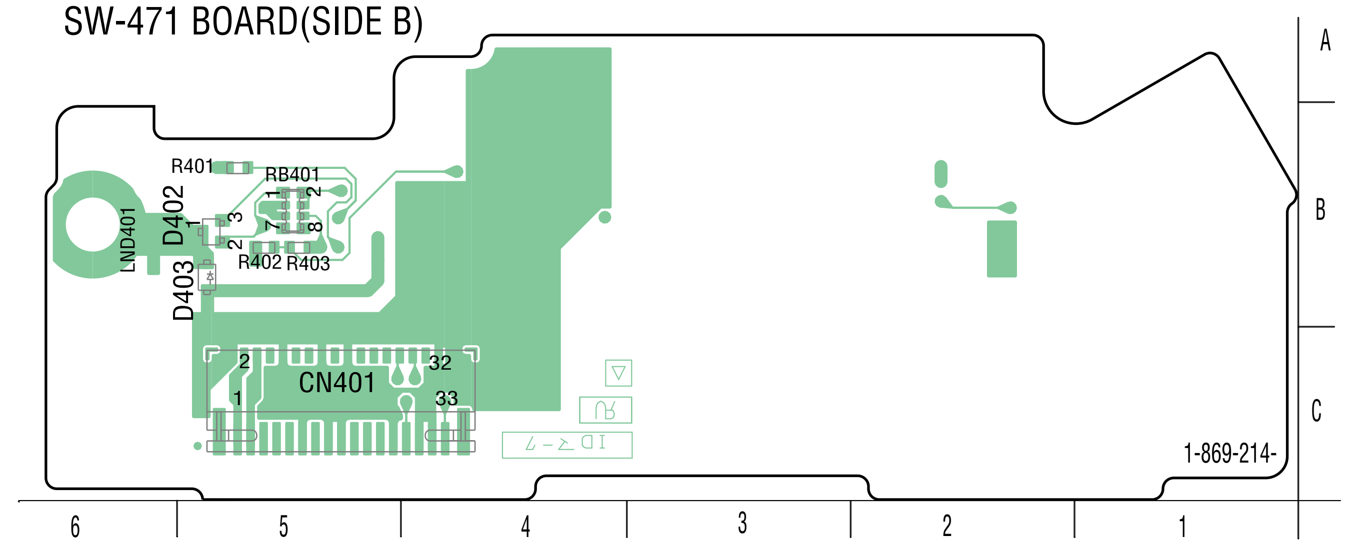
CD-617 BOARD(SIDE B)



SW-471 BOARD(SIDE A)

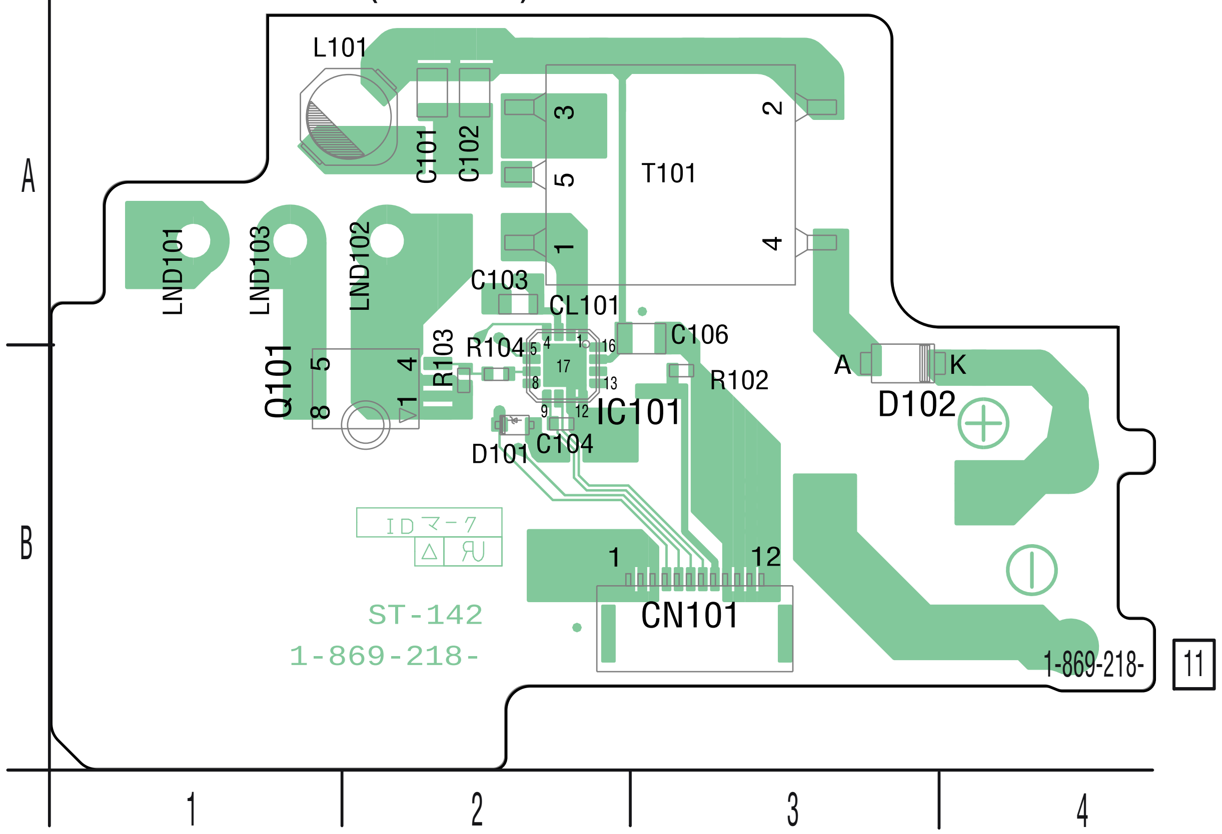


SW-471 BOARD(SIDE B)

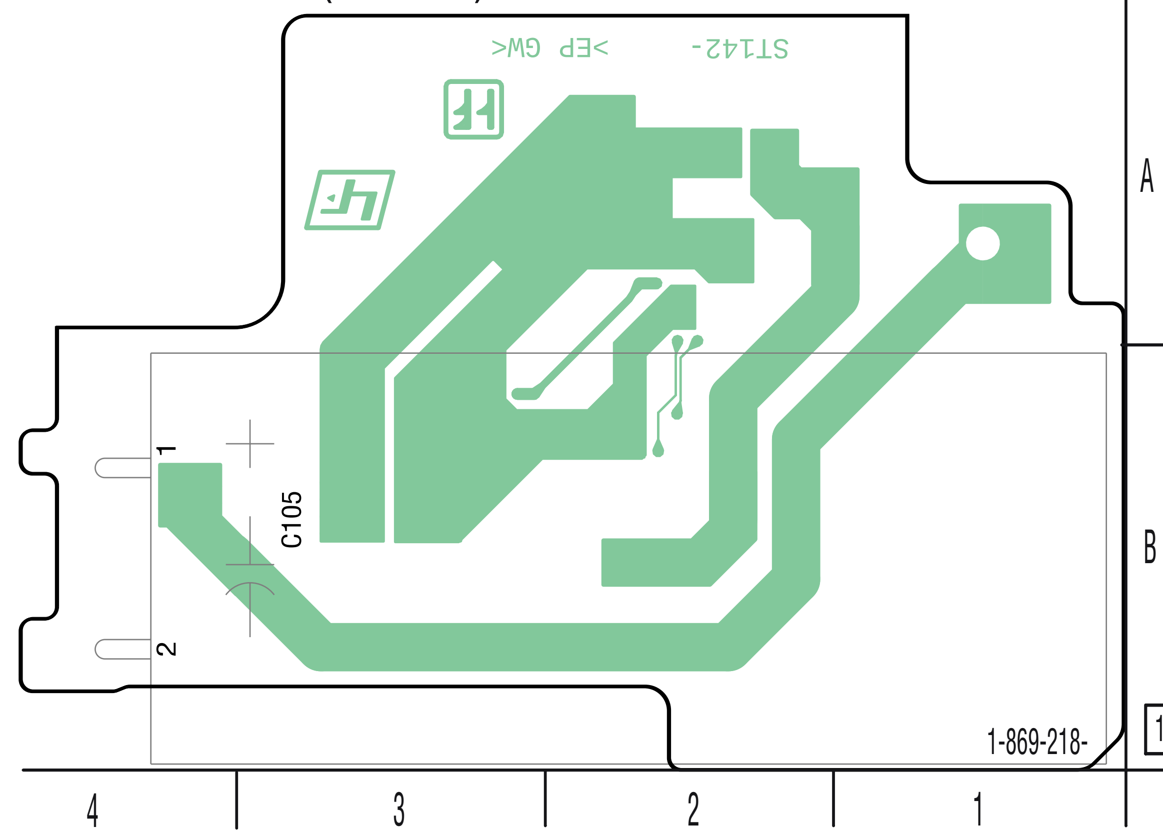


ST-142 (2 layers), ST-144 (1 layer), MS-305 (4 layers) • : Uses unleaded solder.

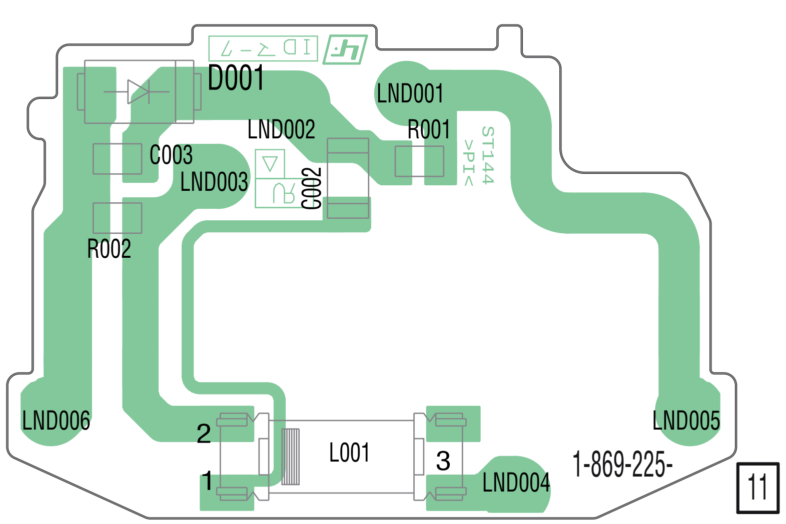
ST-142 BOARD(SIDE A)



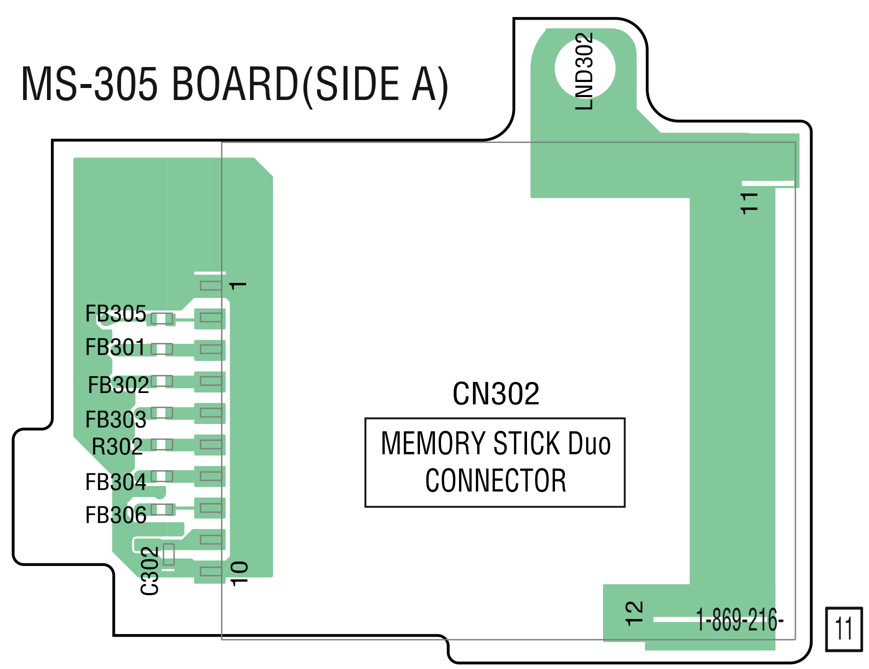
ST-142 BOARD(SIDE B)



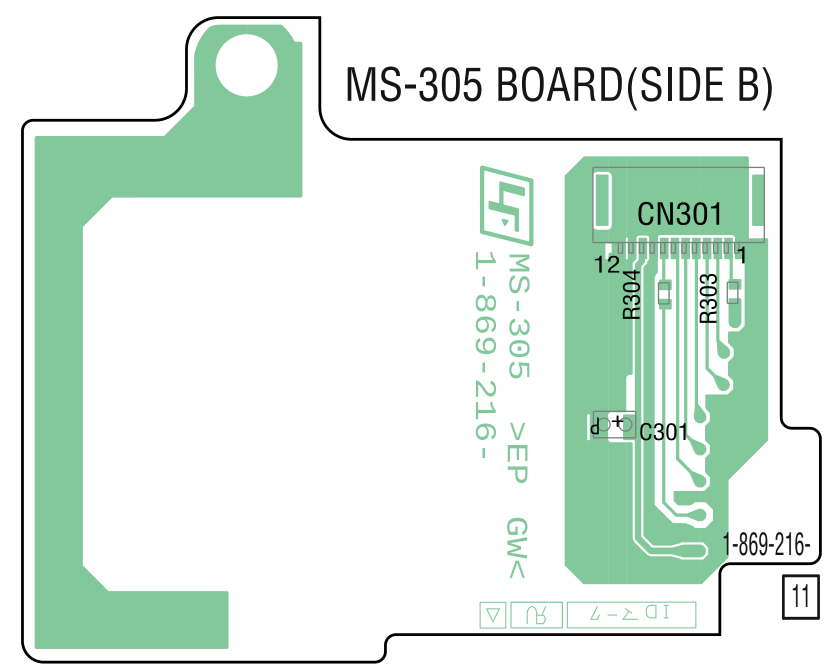
ST-144 BOARD



MS-305 BOARD(SIDE A)



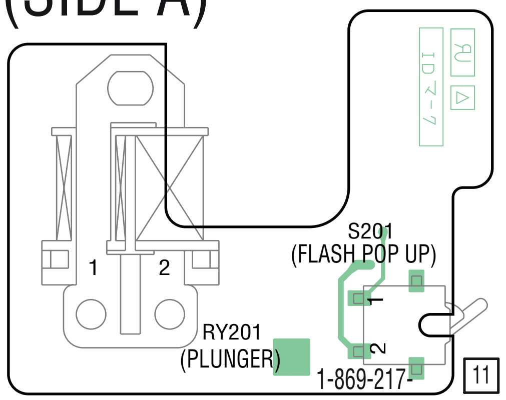
MS-305 BOARD(SIDE B)



PL-045 (2 layers), AF-105 FLEXIBLE (1 layer), JK-306 FLEXIBLE (1 layer)

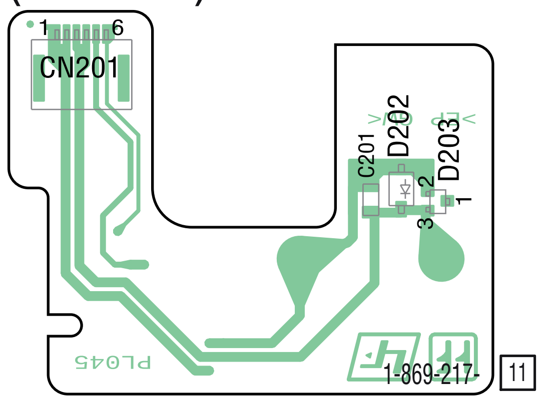
- : Uses unleaded solder.

PL-045 BOARD (SIDE A)

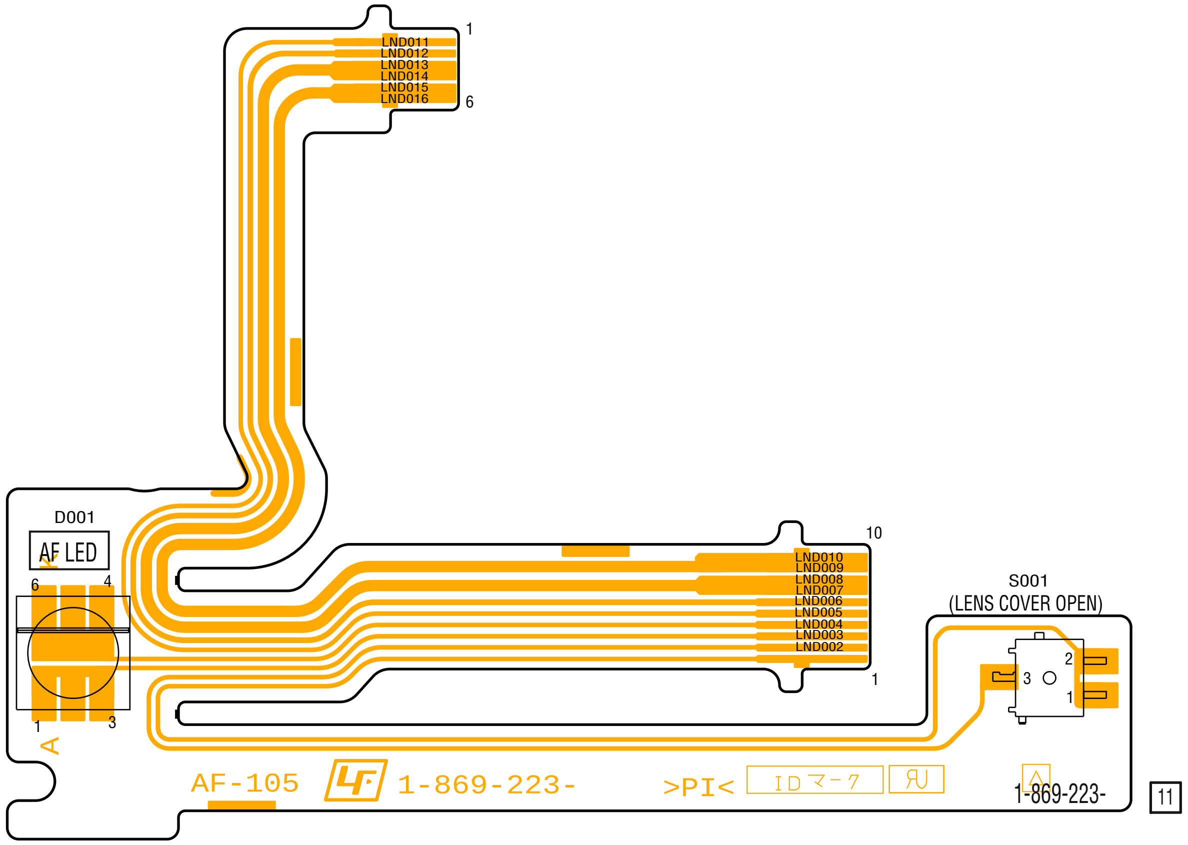


Note: RY201 is not included in this COMPLETE of PL-045 board.

PL-045 BOARD (SIDE B)

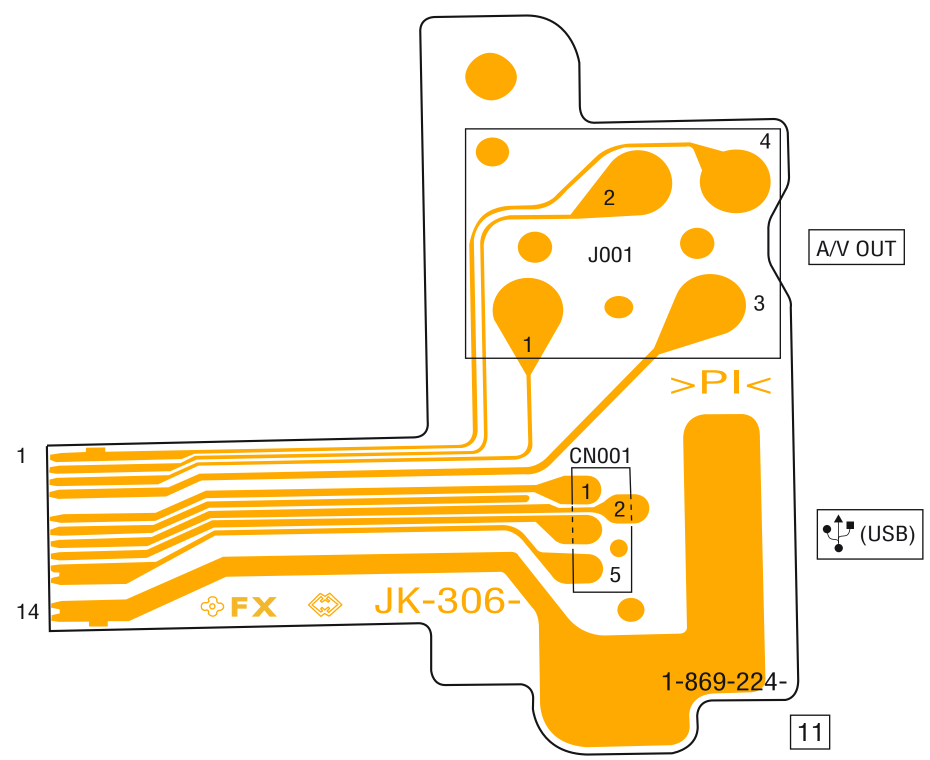


AF-105 FLEXIBLE BOARD

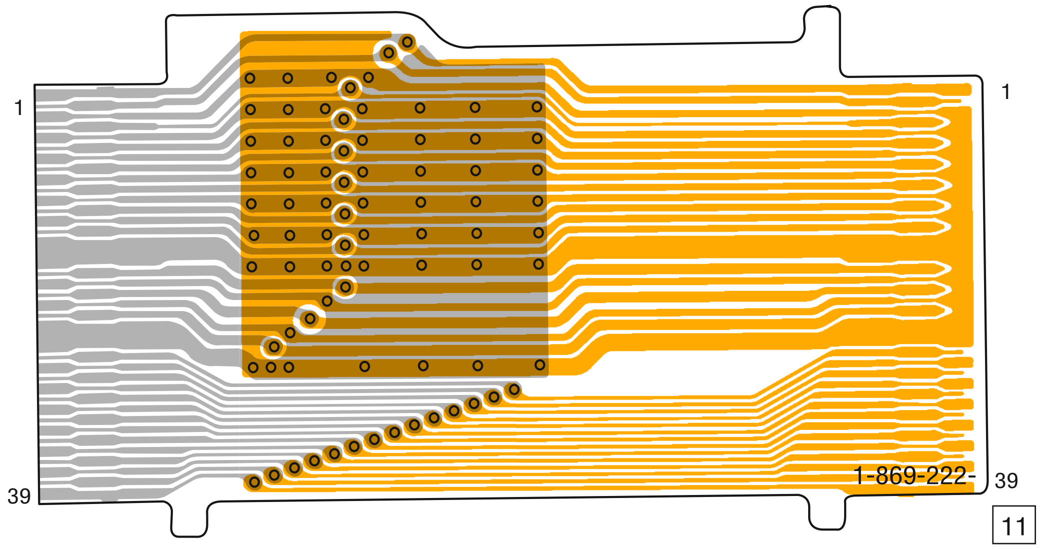


Note: D001 (AF LED) is not supplied, but this is included in AF-105 flexible board complete.

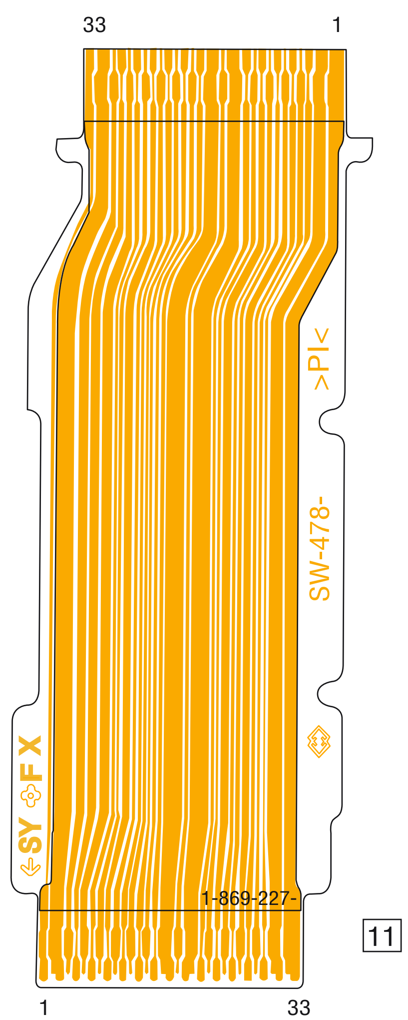
JK-306 FLEXIBLE BOARD



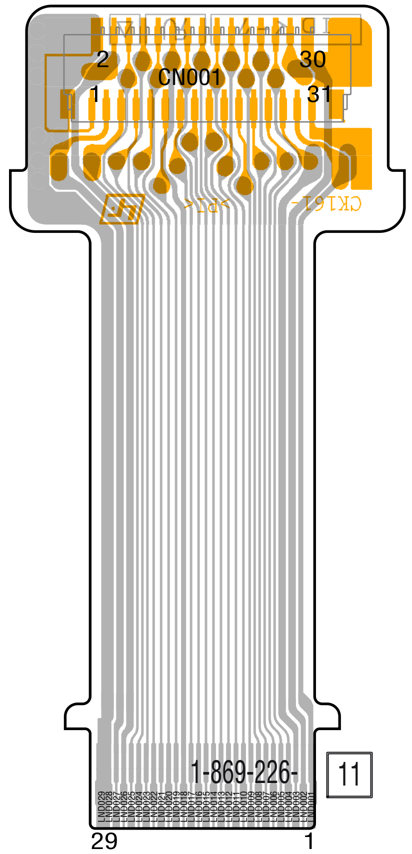
CD-621 FLEXIBLE BOARD



SW-478 FLEXIBLE BOARD



CK-161 FLEXIBLE BOARD



Printed wiring board of the SY-150 board and CH-199 board are not shown.
Pages from 4-29 to 4-31 are not shown.

4-4. MOUNTED PARTS LOCATION

no mark : side A
* mark : side B

CD-617 BOARD

* C001	B-2
* C002	B-1
* C003	B-1
* C004	B-1
* C005	B-1
* C006	B-2
* C007	B-1
* C008	B-2
* C009	B-2
* CL001	B-3
* CL002	B-3
* CL003	B-3
* CL006	B-3
* CL007	B-3
* CL008	B-3
* CN001	B-1
* IC001	B-1
IC002	B-2
* Q001	B-2
* R001	B-2
* R002	B-2
* R003	B-2
* R004	B-2
* R007	B-2
* R009	B-2
* R010	B-2
* R011	B-1

SW-471 BOARD

* CN401	C-5
CN402	B-2
D401	B-6
* D402	B-6
* D403	B-5
* LND401	B-6
* R401	B-5
* R402	B-5
* R403	B-5
R404	A-2
R405	B-2
* RB401	B-5
RB402	B-2
S401	A-4
S402	C-5
S403	B-5
S404	B-3
S405	B-4
S406	C-4
S407	B-1
S408	B-2
S409	C-1
S410	B-3

ST-142 BOARD

C101	A-2
C102	A-2
C103	A-2
C104	B-2
* C105	B-3
C106	B-3
CL101	A-2
CN101	B-3
D101	B-2
D102	B-3
IC101	B-3
L101	A-1
LND101	A-1
LND102	A-2
LND103	A-1
Q101	B-1
R102	B-3
R103	B-2
R104	B-2
T101	A-3

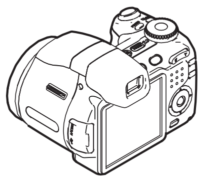
Mounted parts location of the SY-150 board is not shown.
Page 4-33 is not shown.

NOTE

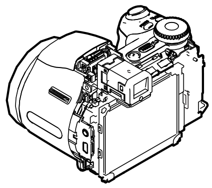
5. REPAIR PARTS LIST

NOTE: Characters A to Z of the electrical parts list indicate location of exploded views in which the desired part is shown.

Link — EXPLODED VIEWS

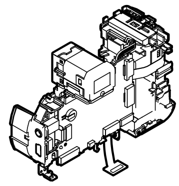


OVERALL SECTION



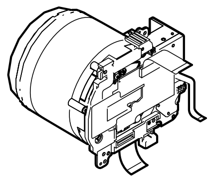
F

LCD SECTION



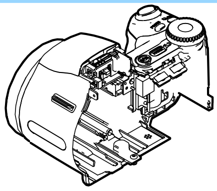
J I G B

MAIN SECTION



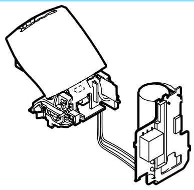
D

LENS SECTION



A

CABINET (FRONT) SECTION



H C E

ST SECTION

Link — ELECTRICAL PARTS LIST

ACCESSORIES

AF-105 FLEXIBLE BOARD A	MS-305 BOARD B	ST-144 BOARD C
CD-617 BOARD D	PL-045 BOARD E	SW-471 BOARD F
CK-161 FLEXIBLE BOARD G	ST-142 BOARD H	SY-150 BOARD I
JK-306 FLEXIBLE BOARD J		

5. REPAIR PARTS LIST

NOTE:
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- CAPACITORS:
  uF: μF
- COILS
  uH: μH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA... , uPA... , μPA... ,
  uPB... , μPB... , uPC... , μPC... ,
  uPD..., μPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Language that can be selected about SY-150 board

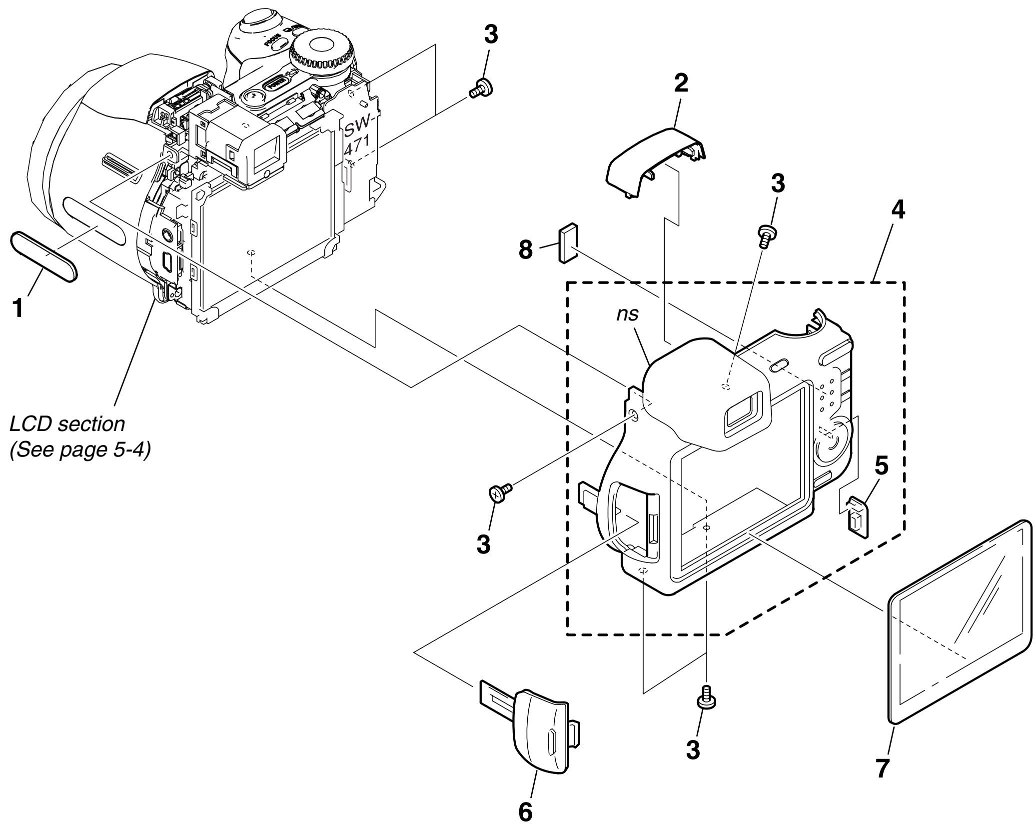
	Area	Japanese	English	French	German	Spanish	Italian	Portugal	Simplified Chinese	Traditional Chinese	Arabic	Dutch	Russian	Swedish	Korean	Norwegian	Danish	Finnish	Polish	Hungarian	Czech	Persian	Thai
GP1	J	●																					
GP2	US CND AUS Vietnam		●	●		●	●		●	●													
GP3	AEP UK		●	●	●	●	●	●				●	●	●		●	●	●	●	●	●		
GP4	E JE HK CH KR BR		●			●		●	●	●	●				●							●	●

- Abbreviation
  J : Japanese model
  CND : Canadian model
  AUS : Australian model
  JE : Tourist model
  HK : Hong Kong model
  CH : Chinese model
  KR : Korea model
  BR : Brazilian model

5-1. EXPLODED VIEWS

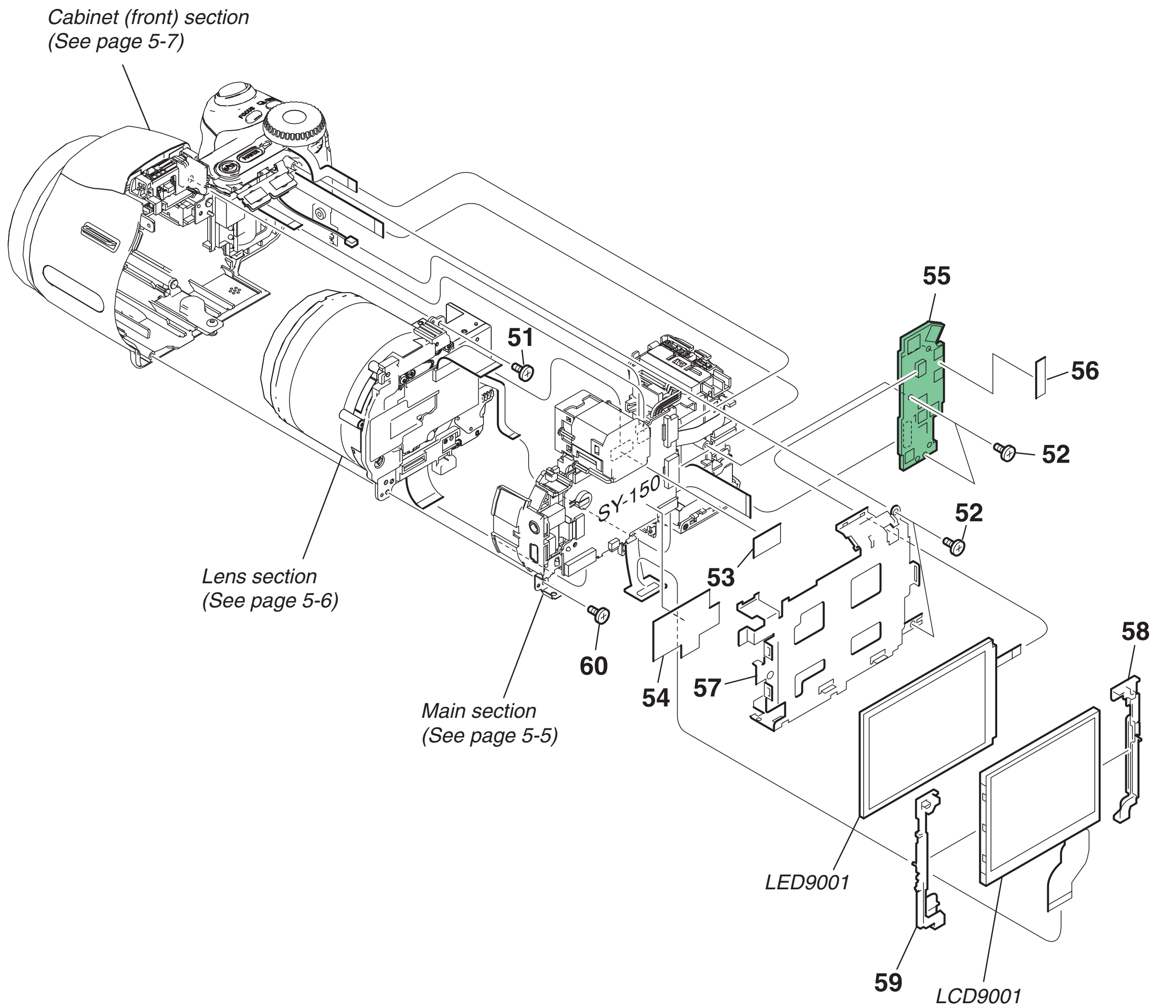
5-1-1. OVERALL SECTION

ns : not supplied



Ref. No.	Part No.	Description
1	2-673-346-01	PLATE, ORNAMENTAL
2	2-673-327-11	CABINET (UPPER) (SILVER)
2	2-673-327-21	CABINET (UPPER) (BLACK)
3	2-630-005-31	SCREW (M2), NEW TRUSTER, P2 (BLACK)
3	2-655-582-11	SCREW 0+P2 M2 NEWTRU-STAR (SILVER)
4	X-2108-909-1	CABINET (REAR) ASSY (420) (SILVER)
4	X-2109-111-1	CABINET (REAR) ASSY (420D) (BLACK)
5	2-673-247-01	LID, DC (SILVER)
5	2-673-247-11	LID, DC (BLACK)
6	2-673-303-01	LID, JK (SILVER)
6	2-673-303-11	LID, JK (BLACK)
7	2-673-345-01	WINDOW (420), LCD
* 8	2-685-484-01	CUSHION (REAR)

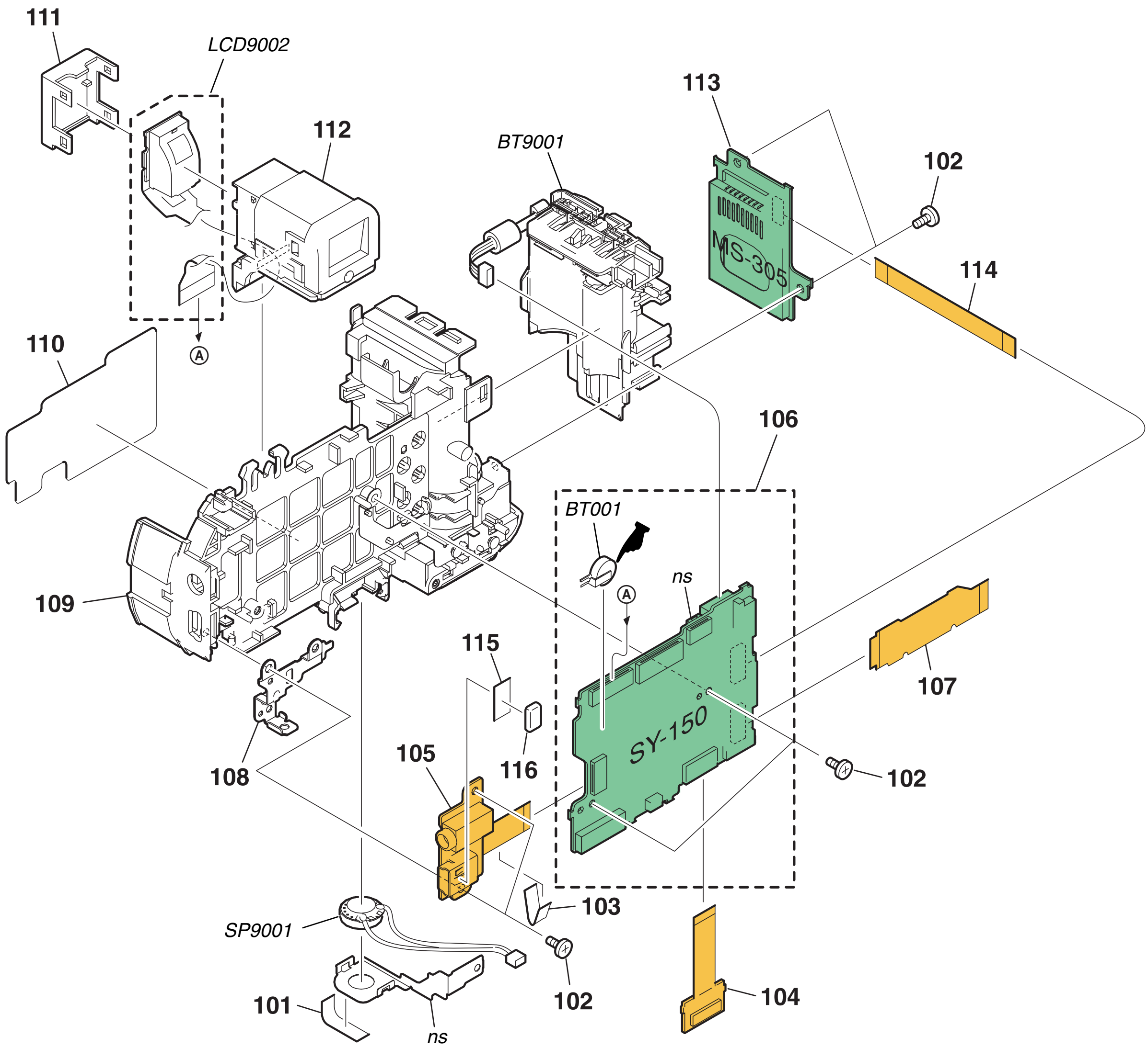
5-1-2. LCD SECTION



Ref. No.	Part No.	Description
51	2-666-551-21	SCREW, TAPPING, P2
52	3-078-890-01	SCREW, TAPPING
* 53	2-694-714-01	TAPE CD RETAINER (420)
* 54	2-673-339-03	LABEL, FUSE REPLACEMENT CAUTION
55	A-1176-922-A	SW-471 BOARD, COMPLETE
* 56	2-678-099-01	SHEET, SW MUFFLE
* 57	2-673-342-01	FRAME (420), LCD
* 58	2-673-344-01	HOLDER (R), LCD
* 59	2-673-343-01	HOLDER (L), LCD
60	2-666-551-21	SCREW, TAPPING, P2
LCD9001	8-753-256-97	ACX541AKA-1
LED9001	1-479-403-11	BLOCK, LIGHT GUIDE PLATE (3.0)

5-1-3. MAIN SECTION

ns : not supplied



: BT001 (Lithium battery) SY-150 board on the mount position. (See page 4-29)

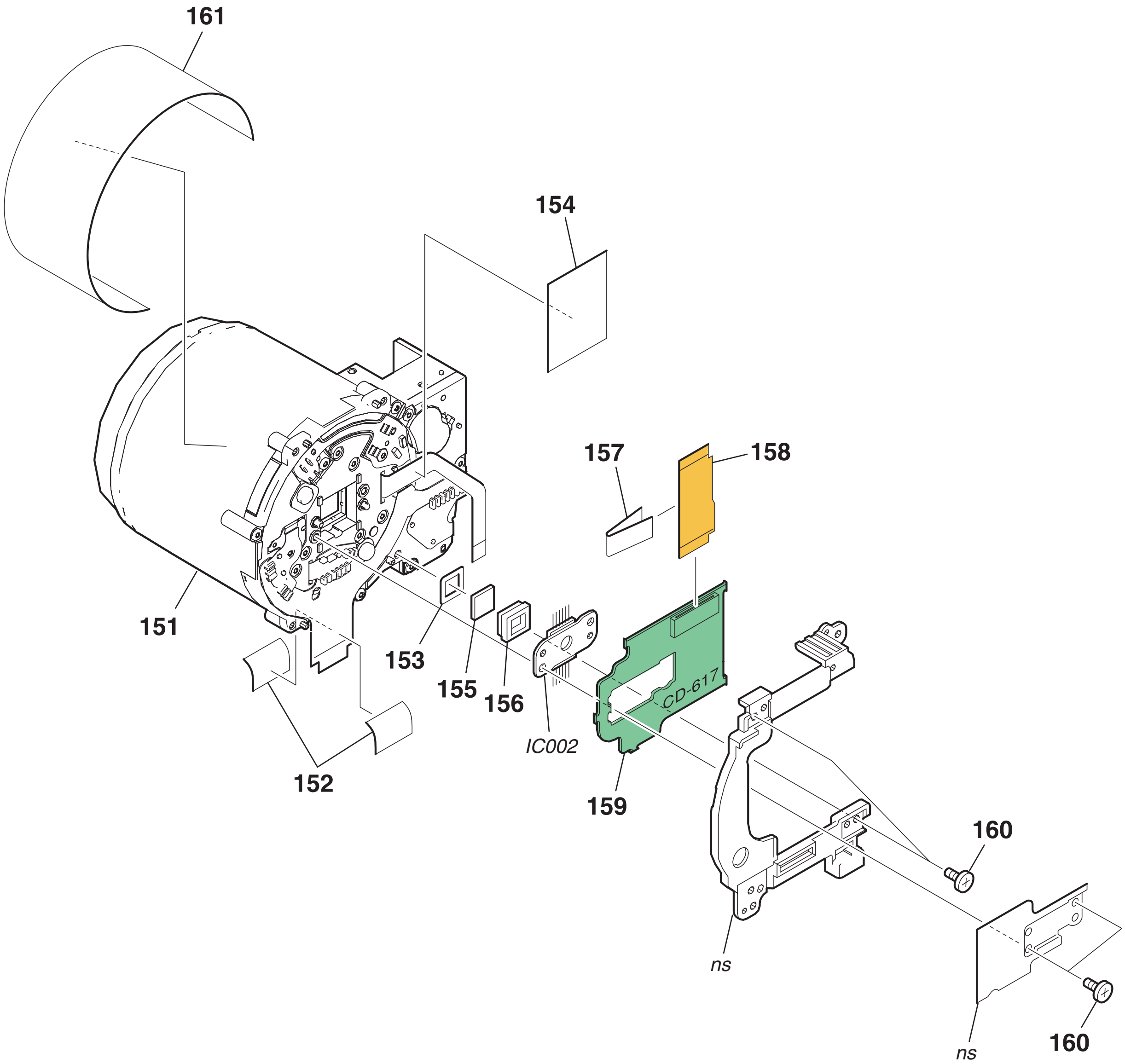
Ref. No.	Part No.	Description
* 101	2-684-446-01	SPACER, SP
102	3-080-204-11	SCREW, TAPPING, P2
* 103	2-672-564-01	SHEET (JK), RADIATION
104	A-1176-978-A	CK-161 FLEXIBLE BOARD, COMPLETE
105	A-1176-915-A	JK-306 FLEXIBLE BOARD, COMPLETE
106	A-1176-925-A	SY-150 BOARD, COMPLETE (SERVICE) (GP1)
106	A-1176-926-A	SY-150 BOARD, COMPLETE (SERVICE) (GP2)
106	A-1176-927-A	SY-150 BOARD, COMPLETE (SERVICE) (GP3)
106	A-1176-928-A	SY-150 BOARD, COMPLETE (SERVICE) (GP4)
107	1-869-227-11	SW-478 FLEXIBLE BOARD
* 108	2-673-306-01	PLATE, JK GROUND
109	X-2108-910-1	HOLDER ASSY, BATTERY (SILVER)
109	X-2109-112-1	HOLDER (420D), BATTERY (BLACK)
* 110	2-677-004-01	SHEET (INR), RADIATION
* 111	2-673-337-01	RETAINER, MODULE
112	X-2108-913-1	ASSY, VF
113	A-1176-924-A	MS-305 BOARD, COMPLETE
114	1-831-557-11	FLEXIBLE FLAT CABLE (MS-030)
* 115	2-694-712-01	USB PROTECTION SHEET
* 116	2-694-713-01	USB GASKET
⚠ BT001	1-756-539-21	BATTERY, LITHIUM SECONDARY
* BT9001	1-780-338-11	TERMINAL BOARD, BATTERY (SILVER)
* BT9001	1-780-338-21	TERMINAL BOARD, BATTERY (BLACK)
LCD9002	1-802-033-11	LCD MODULE
SP9001	1-826-403-21	LOUDSPEAKER (1.0CM)

CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

• Refer to page 5-1 for mark ⚠.

5-1-4. LENS SECTION

ns : not supplied

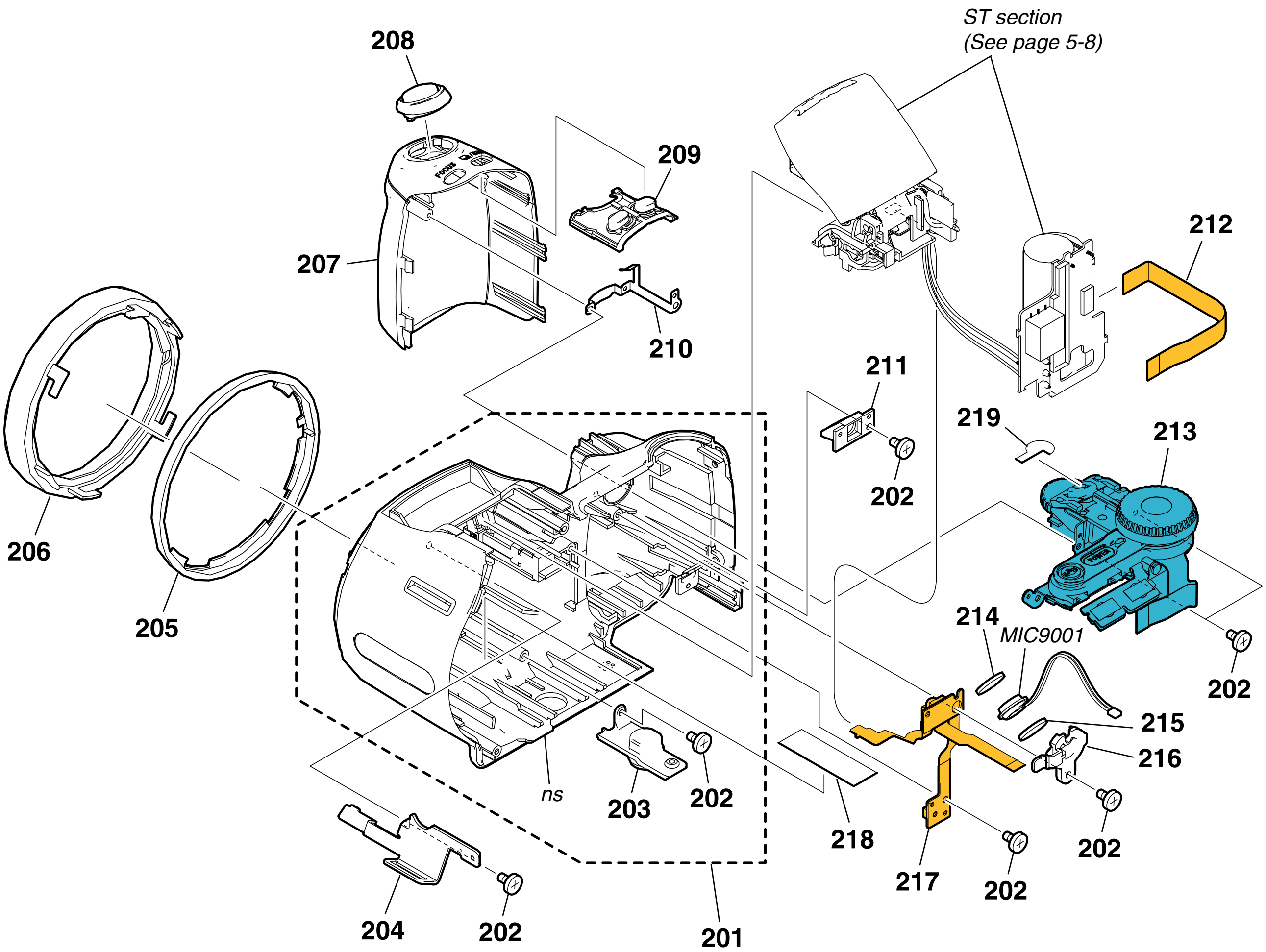


Ref. No.	Part No.	Description
151	A-1177-128-A	SERVICE, OPTICS UNIT (B191A) (SERVICE)
* 152	2-672-563-01	SHEET (LNS), RADIATION
153	2-592-693-01	PLATE (T), LIGHT INTERCEPTION
* 154	2-672-565-01	SHEET (TB), RADIATION
155	1-788-338-11	OPTICAL FILTER BLOCK
156	2-592-605-01	RUBBER (TM), SEAL
* 157	2-672-562-01	SHEET (CD), RADIATION
158	1-869-222-11	CD-621 FLEXIBLE BOARD
159	A-1176-923-A	CD-617 BOARD, COMPLETE (IC002 is not included in this COMPLETE board.)
160	2-666-551-21	SCREW, TAPPING, P2
* 161	2-689-504-01	SHEET (LNS 2), RADIATION
IC002	A-1176-035-A	CCD BLOCK ASSY (CCD IMAGER) (IC002 is not included in this COMPLETE board of CD-617.)

Be sure to read “Precautions upon replacing CCD imager” on page 4-3 when changing the CCD imager.

5-1-5. CABINET (FRONT) SECTION

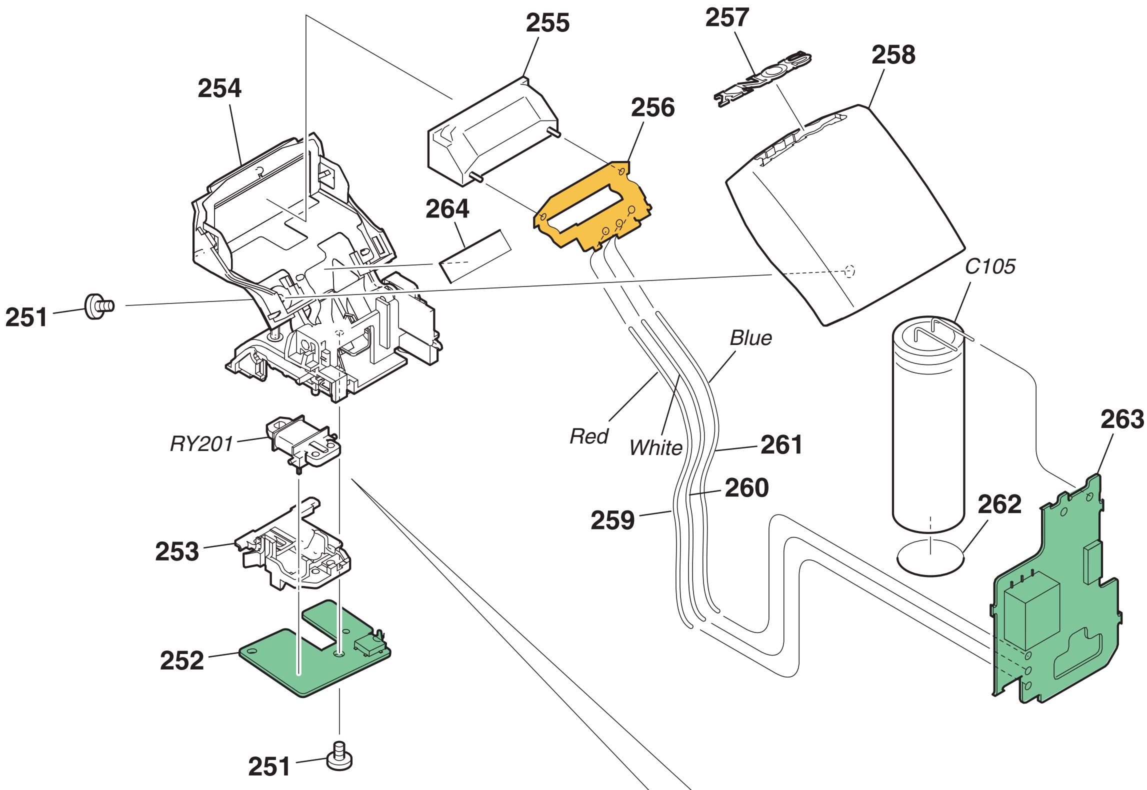
ns : not supplied



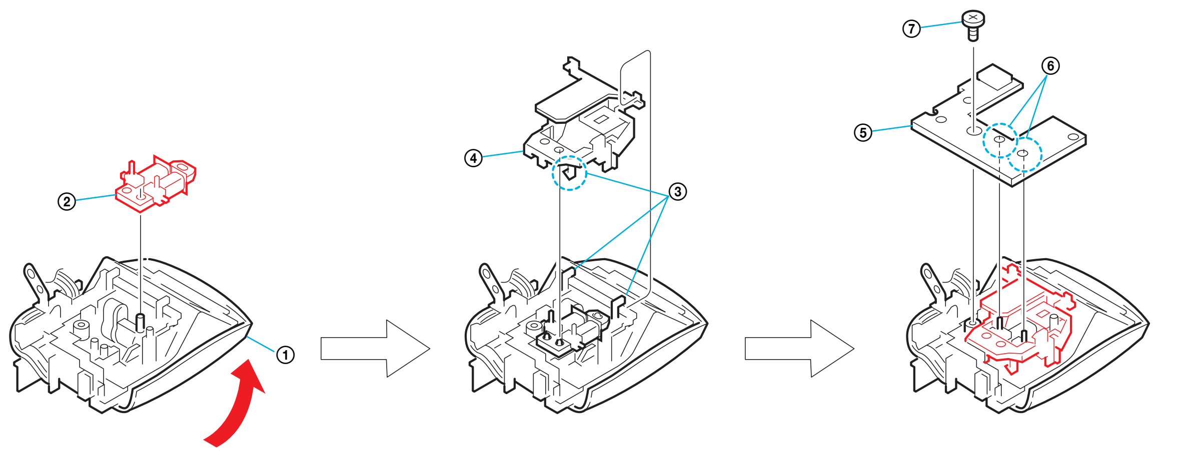
Ref. No.	Part No.	Description
201	X-2108-907-1	CABINET (FRONT) ASSY (420) (SILVER)
201	X-2109-110-1	CABINET (FRONT) ASSY (420D) (BLACK)
202	3-080-204-11	SCREW, TAPPING, P2
203	2-673-230-01	SCREW, TRIPOD
* 204	2-673-328-01	SHEET METAL (R), STRAP
205	2-673-324-11	RING, ORNAMENTAL
206	2-673-323-11	RING, LENS
207	2-673-325-11	GRIP (SILVER)
207	2-673-325-21	GRIP (BLACK)
208	X-2108-326-1	RELEASE ASSY (420)
209	2-673-301-11	BUTTON, FB
* 210	2-673-305-01	PLATE, GRIP GROUND
* 211	2-673-302-01	HOLDER, AF
212	1-831-558-11	FLEXIBLE FLAT CABLE (ST-003)
213	1-479-699-21	SWITCH BLOCK, CONTROL
* 214	2-673-335-01	CUSHION, MICROPHONE
* 215	2-678-097-01	CUSHION (B), MICROPHONE
* 216	2-673-334-01	HOLDER, MICROPHONE
217	A-1176-913-A	AF-105 FLEXIBLE BOARD, COMPLETE
* 218	2-689-505-01	SHEET (TRIPOD), RADIATION
219	2-695-940-01	SPACER, RELEASE
MIC9001	1-542-618-21	MICROPHONE

5-1-6. ST SECTION

ns : not supplied



PRECAUTION DURING SOLENOID PLUNGER INSTALLATION



① Close the ST cover.

② Plunger solenoid

③ Two claws

④ Solenoid retainer

⑤ PL-045 board

⑥ Apply the soldering in two points.

⑦ Tapping screw (M1.7x4)

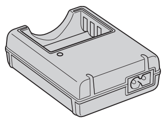
Ref. No.	Part No.	Description
251	3-080-204-11	SCREW, TAPPING, P2
252	A-1176-908-A	PL-045 BOARD, COMPLETE
253	2-629-818-01	RETAINER, SOLENOID
254	X-2108-912-1	BASE ASSY, ST
⚠255	1-479-553-11	FLASH UNIT
256	A-1176-914-A	ST-144 BOARD, COMPLETE
257	2-673-341-01	EMBLEM (320), ST (SILVER)
257	2-673-341-11	EMBLEM (320), ST (BLACK)
258	2-673-326-01	COVER, ST (SILVER)
258	2-673-326-11	COVER, ST (BLACK)
259	1-964-411-11	HARNESS (HA-004) (Red)
260	1-964-411-21	HARNESS (HA-004) (White)
261	1-964-411-31	HARNESS (HA-004) (Blue)
* 262	2-678-098-01	SHEET, ST ELECTROSTATIC
263	A-1176-909-A	ST-142 BOARD, COMPLETE
* 264	2-678-099-01	SHEET, SW MUFFLE
⚠C105	1-112-763-11	CAP, ELECT 320uF 330V
RY201	1-455-038-11	SOLENOID, PLUNGER

• Refer to page 5-1 for mark ⚠.

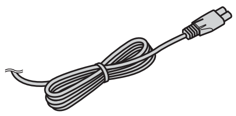
5. REPAIR PARTS LIST

Checking supplied accessories.

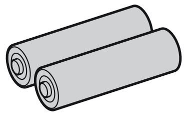
Make sure that the following accessories are supplied with your camcorder.



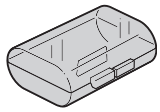
⚠ Ni-MH battery charger BC-CS2A/CS2B (1)
(US,CND,JE,J model)
1-479-378-11
⚠ Ni-MH battery charger BC-CS2A/CS2B (1)
(AEP,UK,E,AUS,HK model)
1-479-378-21
⚠ Ni-MH battery charger BC-CS2A/CS2B (1)
(KR,CH model)
1-479-378-31



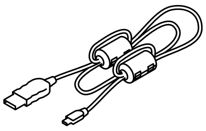
⚠ Power cord (Mains lead) (1)
(US,CND model)
1-790-107-51
⚠ Power cord (Mains lead) (1)
(AEP,E model)
1-824-910-31
⚠ Power cord (Mains lead) (1)
(AUS model)
1-827-945-41
⚠ Power cord (Mains lead) (1)
(KR model)
1-823-947-51
⚠ Power cord (Mains lead) (1)
(UK model)
1-827-269-22
⚠ Power cord (Mains lead) (1)
(HK model)
1-783-374-22
⚠ Power cord (Mains lead) (1)
(CH model)
1-782-476-41
⚠ Power cord (Mains lead) (1)
(JE, J model)
1-792-549-31



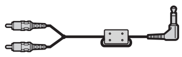
HR6 (size AA) Nickel-Metal
Hydride batteries (2)
(not supplied)



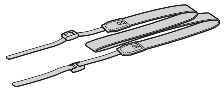
Battery case (1)
3-074-757-01



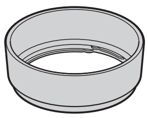
USB cable (1)
1-829-868-41



AV cable (1)
1-824-519-11



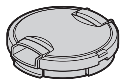
Shoulder strap (1)
2-629-892-01



Lens hood (1)
2-629-860-01



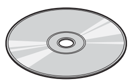
Adaptor ring (1)
2-629-861-01



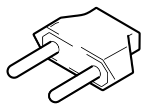
Lens cap (1)
X-2055-960-1



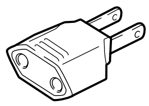
Lens cap strap (1)
3-979-194-31



CD-ROM
(Cyber-shot application software) (1)
(Except BR model)
2-666-673-03



2-pin conversion adaptor (1)
(JE model)
1-569-007-12



2-pin conversion adaptor (1)
(E model)
1-569-008-12

Other accessories

2-673-174-01	INSTRUCTION (READ THIS FIRST) (JAPANESE)(J)
2-673-174-11	INSTRUCTION (READ THIS FIRST) (ENGLISH) (US,CND,AEP,UK,E,AUS,HK,JE)
2-673-174-21	INSTRUCTION (READ THIS FIRST) (FRENCH/ITALIAN) (CND,AEP)
2-673-174-31	INSTRUCTION (READ THIS FIRST) (SPANISH/PORTUGUESE)(AEP,E,JE)
2-673-174-41	INSTRUCTION (READ THIS FIRST) (GERMAN/DUTCH) (AEP)
2-673-174-51	INSTRUCTION (READ THIS FIRST) (SIMPLIFIED CHINESE/TRADITIONAL CHINESE) (E,HK,CH,JE)
2-673-174-61	INSTRUCTION (READ THIS FIRST) (RUSSIAN)(AEP)
2-673-174-71	INSTRUCTION (READ THIS FIRST) (ARABIC/PERSIAN)(E)
2-673-174-81	INSTRUCTION (READ THIS FIRST) (KOREAN)(KR,JE)
2-673-174-91	INSTRUCTION (READ THIS FIRST) (CZECH/POLISH) (AEP)
2-673-175-11	INSTRUCTION (READ THIS FIRST) (HUNGARIAN/SLOVAK)(AEP)
2-673-175-21	INSTRUCTION (READ THIS FIRST) (SWEDISH/FINNISH) (AEP)
2-673-175-31	INSTRUCTION (READ THIS FIRST) (NORWEGIAN/DANISH)(AEP)
2-673-176-01	INSTRUCTION (USER'S GUIDE) (JAPANESE)(J)
2-673-176-11	INSTRUCTION (USER'S GUIDE) (ENGLISH) (US,CND,AEP,UK,E,AUS,HK,JE)
2-673-176-21	INSTRUCTION (USER'S GUIDE) (FRENCH/ITALIAN) (CND,AEP)
2-673-176-31	INSTRUCTION (USER'S GUIDE) (SPANISH/PORTUGUESE)(AEP,E,JE)
2-673-176-41	INSTRUCTION (USER'S GUIDE) (GERMAN/DUTCH)(AEP)
2-673-176-51	INSTRUCTION (USER'S GUIDE) (SIMPLIFIED CHINESE/ TRADITIONAL CHINESE)(E,HK,CH,JE)
2-673-176-61	INSTRUCTION (USER'S GUIDE) (RUSSIAN)(AEP)
2-673-176-71	INSTRUCTION (USER'S GUIDE) (ARABIC/PERSIAN)(E)
2-673-176-81	INSTRUCTION (USER'S GUIDE) (KOREAN)(KR,JE)
2-673-176-91	INSTRUCTION (USER'S GUIDE) (POLISH/CZECH)(AEP)
2-673-177-11	INSTRUCTION (USER'S GUIDE) (HUNGARIAN/SLOVAK) (AEP)
2-673-177-21	INSTRUCTION (USER'S GUIDE) (SWEDISH/FINNISH) (AEP)
2-673-177-31	INSTRUCTION (USER'S GUIDE) (NORWEGIAN/DANISH) (AEP)

• Refer to page 5-1 for mark ⚠.

5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description			
	A-1176-913-A	AF-105 FLEXIBLE BOARD, COMPLETE			
		********************************			
		(D001 (AF LED) is not supplied, but this is included in AF-105 flexible board complete.)			
		< DIODE >			
D001	Not supplied	DIODE DOR5073 (AF LED)			
		(D001 (AF LED) is not supplied, but this is included in AF-105 flexible board complete.)			
		< SWITCH >			
S001	1-762-805-21	SWITCH, PUSH (1 KEY)(LENS COVER OPEN)			

Ref. No.	Part No.	Description			
	A-1176-923-A	CD-617 BOARD, COMPLETE			
		**********************			
		(IC002 is not included in this COMPLETE board.)			
		< CAPACITOR >			
C002	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C004	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C005	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C006	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C007	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C009	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
* CN001	1-816-057-51	CONNECTOR, FPC (ZIF) 39P			
		< IC >			
IC001	8-753-230-85	IC CXA3691EN-T9			
IC002	A-1176-035-A	CCD BLOCK ASSY (CCD IMAGER)			
		(IC002 is not included in this COMPLETE of CD-617 board.)			
		< TRANSISTOR >			
Q001	6-550-119-01	TRANSISTOR	DTC144EMT2L		
		< RESISTOR >			
R001	1-218-990-81	SHORT CHIP	0		
R002	1-218-990-81	SHORT CHIP	0		
R003	1-218-982-11	RES-CHIP	270K	5%	1/16W
R004	1-218-989-11	RES-CHIP	1M	5%	1/16W
R007	1-218-979-11	RES-CHIP	150K	5%	1/16W
R010	1-218-977-11	RES-CHIP	100K	5%	1/16W
R011	1-218-990-81	SHORT CHIP	0		

Ref. No.	Part No.	Description			
	A-1176-978-A	CK-161 FLEXIBLE BOARD, COMPLETE			
		********************************			
		< CONNECTOR >			
* CN001	1-817-391-51	CONNECTOR, FPC (ZIF) 31P			

Ref. No.	Part No.	Description			
	A-1176-915-A	JK-306 FLEXIBLE BOARD, COMPLETE			
		*********************			
		< CONNECTOR >			
CN001	1-794-962-11	CONNECTOR, SQUARE TYPE (USB 5P)			
		< JACK >			
J001	1-793-620-41	JACK (A/V OUT)			

Ref. No.	Part No.	Description			
	A-1176-924-A	MS-305 BOARD, COMPLETE			
		**********************			
		< CAPACITOR >			
C301	1-100-786-91	TANTAL. CHIP	22uF	20%	6.3V
C302	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
* CN301	1-816-644-51	FFC/FPC CONNECTOR (LIF) 12P			
CN302	1-817-827-11	MEMORY STICK DUO CONNECTOR			
		< FERRITE BEAD >			
FB301	1-469-581-21	INDUCTOR, FERRITE BEAD (1005)			
FB302	1-469-581-21	INDUCTOR, FERRITE BEAD (1005)			
FB303	1-469-581-21	INDUCTOR, FERRITE BEAD (1005)			
FB304	1-469-581-21	INDUCTOR, FERRITE BEAD (1005)			
FB305	1-218-990-81	SHORT CHIP	0 (Note1)		
FB306	1-218-990-81	SHORT CHIP	0 (Note1)		
		< RESISTOR >			
R302	1-218-953-11	RES-CHIP	1K	5%	1/16W
R303	1-218-940-11	RES-CHIP	82	5%	1/16W
R304	1-218-940-11	RES-CHIP	82	5%	1/16W

Ref. No.	Part No.	Description			
	A-1176-908-A	PL-045 BOARD, COMPLETE			
		**********************			
		(RY201 is not included in this COMPLETE board.)			
		< CAPACITOR >			
C201	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
		< CONNECTOR >			
* CN201	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P			
		< DIODE >			
D202	8-719-988-61	DIODE 1SS355TE-17			
D203	6-500-776-01	DIODE MAZW068H0LS0			
		< RELAY >			
RY201	1-455-038-11	SOLENOID, PLUNGER			
		(RY201 is not included in this COMPLETE of PL-045 board.)			

Be sure to read “Precautions upon replacing CCD imager” on page 4-3 when changing the CCD imager.

Note 1:
Resistor is mounted to the location where FB305 and FB306 are printed.

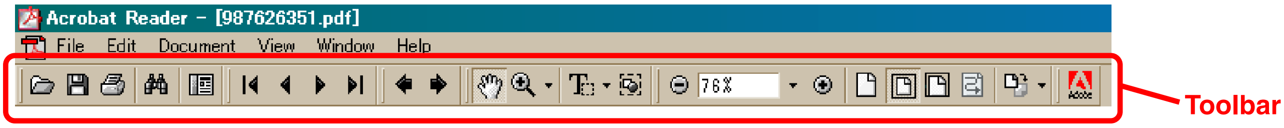
Ref. No.	Part No.	Description			
		< SWITCH >			
S201	1-786-179-31	SWITCH, PUSH (1KEY)(FLASH POP UP)			
	A-1176-909-A	ST-142 BOARD, COMPLETE			
		**********************			
		(C105 is not included in this COMPLETE board.)			
		< CAPACITOR >			
C101	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C102	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C103	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
⚠C105	1-112-763-11	CAP, ELECT	320uF		330V
		(C105 is not included in this COMPLETE of ST-142 board.)			
C106	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
		< CONNECTOR >			
* CN101	1-816-644-51	FFC/FPC CONNECTOR (LIF) 12P			
		< DIODE >			
D101	8-719-056-54	DIODE MAZS068008SO			
⚠D102	6-501-096-01	DIODE CRF02 (TE85R)			
		< IC >			
IC101	6-707-555-01	IC TPS65552RGTR			
		< COIL >			
L101	1-456-995-22	INDUCTOR	4.7uH		
		< TRANSISTOR >			
Q101	6-550-891-01	TRANSISTOR	GT8G133 (T2LSONY.Q)		
		< RESISTOR >			
R103	1-243-975-11	METAL CHIP	4.7M	5%	1/16W
R104	1-218-935-11	RES-CHIP	33	5%	1/16W
		< TRANSFORMER >			
⚠T101	1-443-850-21	DC-DC CONVERTER TRANSFORMER,			
	A-1176-914-A	ST-144 BOARD, COMPLETE			
		**********************			
		< CAPACITOR >			
C002	1-100-758-11	CERAMIC CHIP	0.047uF	10%	250V
C003	1-100-761-21	CERAMIC CHIP	0.01uF	10%	250V
		< DIODE >			
D001	6-500-811-01	DIODE RR255L-400TE25			
		< COIL >			
L001	1-456-193-11	COIL, TRIGGER			

Ref. No.	Part No.	Description			
		< RESISTOR >			
R001	1-216-121-11	RES-CHIP	1M	5%	1/10W
R002	1-216-097-11	RES-CHIP	100K	5%	1/10W
	A-1176-922-A	SW-471 BOARD, COMPLETE			
		***********************			
		< CONNECTOR >			
* CN401	1-815-333-51	CONNECTOR, FPC (ZIF) 33P			
* CN402	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P			
		< DIODE >			
D401	8-719-064-07	DIODE SML-310LTT86 (ACCESS)			
D402	6-500-776-01	DIODE MAZW068H0LS0			
D403	8-719-056-23	DIODE MA2S111-(K8).SO			
		< RESISTOR >			
R401	1-208-671-11	METAL CHIP	330	0.5%	1/16W
R402	1-218-970-11	RES-CHIP	27K	5%	1/16W
R403	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R404	1-218-970-11	RES-CHIP	27K	5%	1/16W
R405	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
		< COMPOSITION CIRCUIT BLOCK >			
RB401	1-234-376-11	RES, NETWORK 2.2K (1005X4)			
RB402	1-234-376-11	RES, NETWORK 2.2K (1005X4)			
		< SWITCH >			
S401	1-786-157-11	SWITCH, TACTILE (RIGHT)			
S402	1-786-157-31	TACTILE SWITCH (DUST)			
S403	1-786-157-11	SWITCH, TACTILE (DOWN)			
S404	1-786-157-11	SWITCH, TACTILE (UP)			
S405	1-786-157-11	SWITCH, TACTILE (SET)			
S406	1-786-157-11	SWITCH, TACTILE (LEFT)			
S407	1-786-525-31	TACTILE SWITCH (ZOOM T)			
S408	1-786-157-11	SWITCH, TACTILE (DISP)			
S409	1-786-525-31	TACTILE SWITCH (ZOOM W)			
S410	1-786-157-11	SWITCH, TACTILE (MENU)			
		SY-150 BOARD, COMPLETE			
		**********************			

Electrical parts list of the SY-150 board is not shown.
Pages from 5-12 to 5-15 are not shown.

• Refer to page 5-1 for mark ⚠.

[Description of main button functions on toolbar of the Adobe Acrobat Reader Ver5.0 (for Windows)]



Printing a text

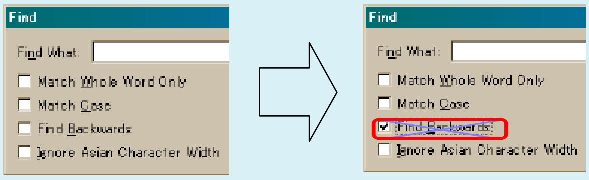
1. Click the Print button .
2. Specify a printer, print range, number of copies, and other options, and then click [OK].

Application of printing:
To set a range to be printed within a page, select the graphic selection tool and drag on the page to enclose a range to be printed, and then click the Print button.

Finding a text

1. Click the Find button .
2. Enter a character string to be found into a text box, and click the [Find]. (Specify the find options as necessary)

Application to the Service Manual:
To execute "find" from current page toward the previous pages, select the check box "Find Backward" and then click the "Find".



3. Open the find dialog box again, and click the [Find Again] and you can find the matched character strings displayed next. (Character strings entered previously are displayed as they are in the text box.)

Application to the Service Manual:
The parts on the drawing pages (block diagrams, circuit diagrams, printed circuit boards) and parts list pages in a text can be found using this find function. For example, find a Ref. No. of IC on the block diagram, and click the [Find Again] continuously, so that you can move to the Ref. No. of IC on the circuit diagram or printed circuit board diagram successively.
Note: The find function may not be applied to the Service Manual depending on the date of issue.

Switching a page

- To move to the first page, click the .
- To move to the last page, click the .
- To move to the previous page, click the .
- To move to the next page, click the .

Reversing the screens displayed once

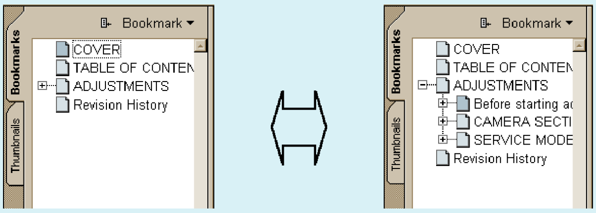
- To reverse the previous screens (operation) one by one, click the .
- To advance the reversed screens (operation) one by one, click the .

Application to the Service Manual:
This function allows you to go and back between circuit diagram and printed circuit board diagram, and accordingly it will be convenient for the voltage check.

Moving with link

1. Select either palm tool , zoom tool , text selection tool , or graphic selection tool .
2. Place the pointer in the position in a text where the link exists (such as a button on cover and the table of contents page, or blue characters on the removal flowchart page or drawing page), and the pointer will change to the forefinger form .
3. Then, click the link. (You will go to the link destination.)

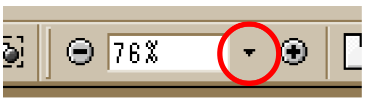
Moving with bookmark:
Click an item (text) on the bookmark pallet. and you can move to the link destination. Also, clicking can display the hidden items.
(To go back to original state, click)



Zooming or rotating the screen display

"Zoom in/out"

- Click the triangle button in the zoom control box to select the display magnification. Or, you may click or for zooming in or out.



"Rotate"

- Click rotate tool , and the page then rotates 90 degrees each.

Application to the Service Manual:
The printed circuit board diagram you see now can be changed to the same direction as the set.

Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2006.04	Official Release	—	—
1.1	2006.06	Correction-1	• Correction of service note • Correction of block diagrams • Correction of schematic diagrams • Correction of printed wiring boards • Correction of electrical parts list S.M. correction: Page 1-3E, 3-1, 3-2, 3-4E, 4-11, 4-27, 5-10	Yes